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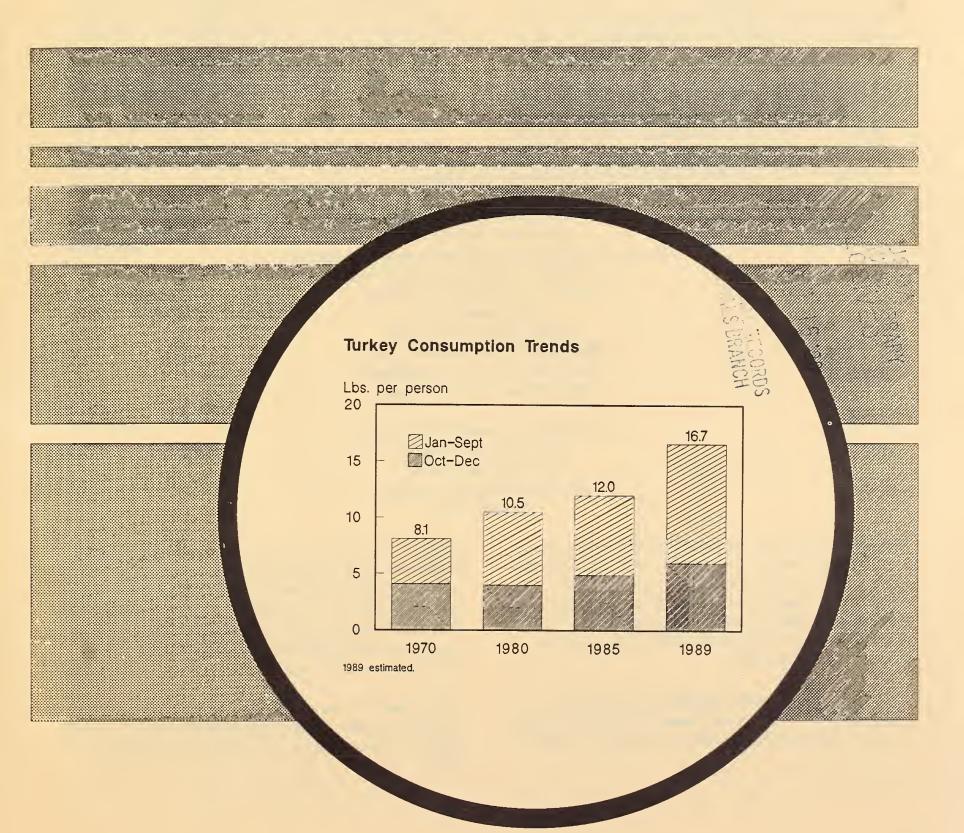
United States
Department of
Agriculture

Economic Research Service

LPS-38 November 1989

# Livestock and Poultry

Situation and Outlook Yearbook



Livestock and Poultry Situation and Outlook. Commodity Economics Division, Economic Research Service, U.S. Department of Agriculture, November 1989, LPS-38.

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Approved by the World Agricultural Outlook Board. Summary released Tuesday, November 14, 1989. The next summary of the *Livestock and Poultry Situation and Outlook* is scheduled for release in late January 1990. Summaries of Situation and Outlook reports, including tables, may be accessed electronically through the USDA EDI system. For details, call (202) 447-5505.

The present forecasts will be updated, if needed, in the World Agricultural Supply and Demand Estimates scheduled for release on December 12, 1989, and January 11, 1990.

The Livestock and Poultry Situation and Outlook is published six times a year. Subscriptions are available from ERS/NASS, Box 1608, Rockville, MD 20850, or call, toll free, 1-800-999-6779 (8:30-5:00 ET). Rates: 1 year \$15, 2 years \$29, 3 years \$42. Foreign customers add 25 percent for subscriptions mailed outside the United States. Make check payable to ERS/NASS.

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# **Summary**

# Red Meat and Poultry Production at Record Levels

Total red meat and poultry production is expected to set a record in 1989 and again in 1990. Among the major components, only beef production may decline in 1989, reflecting the reduced cattle inventory. In 1990, production may increase because of more fed beef. In both years, pork output could remain relatively large. Broiler output will continue to grow because producers' returns generally have been positive in recent years. Turkey production also is expected to grow but at a lower rate than broilers because returns are being squeezed.

Consumers will find adequate supplies of turkey and ham for the holiday season. Prices likely will be lower for turkeys but higher for hams than last year. Turkey production in the fourth quarter may be about 12 percent above a year ago, with frozen stocks up slightly. Ham supplies are expected to decline slightly despite an increase in cold storage stocks.

More meat and poultry and weaker growth in per capita income could pressure market prices in 1990. Increased red meats will be about offset by population growth. As a result, prices of Choice steers and barrows and gilts should be a little above 1989's average. However, with higher per capita output, wholesale poultry prices are expected to decline moderately.

Beef and veal exports could reach a record 1 billion pounds, up 46 percent from 1988 due largely to liberalization of the Japanese market. In 1990, exports may rise 12 to 15 percent over 1989. Beef and veal imports in 1989 might decline about 8 percent from 1989 because of lower supplies from Australia. Declines are likely in 1990 on smaller shipments from New Zealand.

U.S. pork imports in 1989 of about 950 million pounds would be 16 percent below 1988 as imports decline from all major sources. Imports in 1990 may increase to about a billion pounds, if Danish production continues to increase.

U.S. pork exports, mostly to Mexico and Japan, should be about 240 million pounds in 1989, up from 195 million in 1988. Consessionary sales to Eastern Europe and the Soviet Union may help boost exports in 1989 and 1990. In 1990, pork exports may decline to around 205 million pounds.

Broiler exports may reach a record this year, about 937 million pounds, a 22-percent increase. Most of the sales are commercial rather than programs such as EEP. The USSR bought U.S. broilers for the first time since 1980. For 1990, broiler exports could be down slightly. Reduced egg supplies raised prices in 1989 and strong returns may increase output in 1990.

Table 1--Livestock, poultry, and egg production and prices (All percent changes shown are from a year earlier.)

Item		1988				1989				1990 1/	
	III	IV	Annual	I	11	III	IV	Annual	I	11	Annual
					Millio	on pounds					
Production: Beef % change	6,185	5,755 -2	23,424	5,529 -3	5,777 0	5,892 -5	5,600 -3	22,798 -3	5,525 0	5,775 0	23,000 1
Pork % change	3,775	4,331 7	15,623	3,887 3	3,928 5	3,789 0	4,225 2	15,829 1	3,975 2	3,850	16,000 1
Lamb & mutton % change	80	84 4	329 6	87 2	80 0	82 +2	83 -1	<b>332</b> 1	85 -2	82 +1	3 <b>3</b> 0
Veal % change	99 0	99 -5	387 -7	91 -6	85 -8	. 84 `15	. 85 `14	345 -11	90 -1	85 0	<b>345</b>
otal red meat % change	10,139	10,269	39,763 3	9,594 -1	9,871 2	9,847 -3	9,99 <u>3</u> -3	39,304 -1	9,675 1	9,7 <u>92</u>	39,675 1
Broilers 2/ % change Turkeys 2/ % change	4,035 2 1,066 -3	4,015 3 1,040 -4	16,124 4 3,923 6	4,129 3 804 -4	4,389 9 1,014 3	4,394 9 1,176 10	4,300 7 1,170 12	17,212 7 4,164 6	4,470 8 900 12	4,700 7 1,100 9	18,48 <u>5</u> 4,350
otal poultry 3/ % change	5,212 0	5,180 1	20,587	5,070 2	5 <b>,53</b> 9	5,702 9	5,600 8	21,910	5,510 9	5,940 7	23,37
otal red meat and poultry % change	15,351	15,449 2	60,350	14,664 0	15,410	15,549 1	<b>15,593</b>	61,214	15,185 4	15,732	63,05
					Millio	on dozen					
ggs % change	1,421 -1	1,446	5,772 -1	1,391 -6	1,394 -2	1,388 -2	1,425 2	5,598 3	1,400	1,410	5,70
rices					Dolla	rs per cwi	 t				
Choice steers, Omah 1000-1100 lb.	66.92	70.14	69.54	73.67	73.85	70.09	71-73	72-73	72-78	72-78	71`7
Barrows and gilts, 7-markets	44.24	38.66	43.39	40.78	41.84	46.07	45-47	43-44	41-47	42`48	42-4
Slaughter lambs, Ch., San Angelo	59.02	62.98	68.26	69.29	74.79	66.29	62`64	68-69	66-72	74`80	66`
Broilers,					Cents	per pound	d				
12-city avg. 4/	66.1	57.9	56.3	59.4	67.1	59.7	50-52	59`60	48`54	50`56	49`!
Turkeys, Eastern region 5/	72.4	72.4	61.5	62.4	71.1	62.3	63-65	64`65	55`61	53`59	57`
					Cents	per doze	n				
Eggs New York 6/	72.9	67.3	62.1	78.6	75.2	81.5	84`86	80-81	75`81	69`72	66`

New York 6/ 72.9 67.3 62.1 78.6 75.2 81.5 84`86 80-81 75`81 69`72 66`72

1/ Projected. 2/ Federally inspected. 3/ Includes broilers, turkeys, and mature chickens. 4/ Wholesale weighted average. 5/ Wholesale, 8- to 16-pound young hens. 6/ Cartoned, consumer Grade A large, sales to volume buyers.

# Factors Affecting Livestock and Poultry

For U.S. livestock and poultry producers, the news for 1990 is a continued slowdown in the economy. The general economy is growing only modestly, while interest rates slip slowly and inflation eases a bit. However, real per capita income growth is expected to be weaker than in 1989. Expected sluggish fourth-quarter real GNP growth and slowing inflation suggest the Federal Reserve may ease monetary policy very slowly. Expected lower interest rates should stimulate growth over the next 6 to 12 months. The bank prime interest rate, which has been steady since summer's 1percentage point drop, may drop again by the end of the year. The prime rate is expected to average 10.7 to 10.9 percent for 1989 but may average about 1 percentage point less in 1990. Real GNP growth is expected to average slightly less that 3 percent in 1990, down slightly from 1989. The rate of inflation, as measured by the GNP price deflator, is expected to average between 4 and 4.5 percent in 1989, but drop in 1990 about 0.5 percent below 1989. Real per capita income may rise nearly 3 percent in 1989 compared with 3.4 in 1988. In 1990, the growth is expected to be weaker, averaging around 2 percent.

Since the peak in September against the D-mark and yen, the dollar has dropped, but still remains relatively strong against those currencies. The decline is attributed to the concerted selling of dollars by the Central banks and falling U.S. interest rates relative to other countries, further lessening the dollar's appeal to investors and speculators. For next year, the dollar exchange value is not expected to change much from current levels but primarily will be influenced by the U.S. budget deficit and Federal Reserve policies.

With much improved weather this year, corn and soybean production rebounded and feed costs dropped as crops progressed. Corn production in 1989/90 is estimated at 7.59 billion bushels compared with only 4.92 in 1988/89. The farm price is expected to average \$2.00 to \$2.40 per bushel in 1989/90 compared with \$2.54 in 1988/89. Soybean production is estimated at 1.94 billion bushels in 1989/90, up 389 million bushels from 1988/89. Soybean meal prices are expected to average \$150-\$180 per ton in 1989/90 compared with \$233 in 1988/89. The lower prices have reduced feed costs, especially for pork and poultry producers.

# **Poultry and Eggs**

# Turkeys

# Production Up in 1989— Strong Second-Half Growth

Turkey production for 1989 is expected to be up about 6 percent, at 4.2 billion pounds. Turkey production in the third quarter of 1989 was 10 percent above a year earlier and will

likely increase 12 percent during the fourth quarter compared with last year. The basis for the 1989 production expansion in the industry began in the second half of 1988 when turkey prices recovered and net returns to producers became positive. Poult placements began to rise notably in March of 1989. Increasing wholesale prices during the first half of this year, including a rise to record levels during the second quarter, kept the planned expansion on track as net returns improved. Finally, producer expectations of lower feed prices in late 1989 probably extended the expansion even after wholesale prices began declining in July.

Table 2--Federally inspected turkey slaughter, 1988-89

Year	Number	Average weight	Live- weight	Certi- fied RTC
	Million	Pounds	- Million	pounds -
1988 I II III IV Year	50.3 60.0 65.7 61.4 237.4	21.0 20.6 20.4 21.4 20.8	1,054.0 1,236.3 1,343.3 1,314.2 4,947.7	836.6 981.1 1,065.6 1,040.1 3,923.4
1989 I II III IV Year	47.9 61.8 72.4	21.2 20.7 20.5	1,012.0 1,278.7 1,483.0	803.5 1,014.3 1,176.4

Table 3--Turkey hatchery operations, 1986-89 1/

		, , , ,								
	tur	Total keys placed	fi ch	Eggs in incubators first of month, changes from previous year						
	1986-87	1987-88 3/	1988-89	1986-87	1987-88	1988-89				
Sept. Oct. Nov. Dec. Jan. Feb. Mar.	13,620 14,135 13,836 17,705 21,646 21,265 25,401	15,024 16,743 17,714 19,956 22,315 23,100 25,101	15,725 16,821 18,413 20,444 23,149 23,675 26,892	18 17 11 18 27 14	Percent  16 18 21 15 10 8 4	7 5 4 6 4 6 5 6 9				
Apr. May June July Aug.	26,703 26,623 27,265 25,999 19,889	24,718 25,559 26,075 23,677 19,458	26,366 28,647 29,098 26,510 23,003	17 16 15 19 22	-1 -5 -3 -5 -5	6 9 13 15 21				

1/ Breakdown by breed not shown to avoid disclosing individual operations. 2/ Excludes exported poults. 3/ Includes revised calender year 1987 numbers.

### Prices Strengthened Seasonally

Faced with large increases in production, wholesale turkey prices dropped in July, August, and early September. After dropping to about 55 cents per pound by mid-September, Eastern Region wholesale hen turkey prices began to rise in response to buying for the holiday season, to about 70 cents by mid-November. Prices are expected to weaken before the end of 1989 as the seasonal buying recedes, and average 64 cents during the fourth-quarter compared with 72 cents a

Table 4--Turkey prices and price spreads, 1987-89

Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
							Cents	/lb.					
Farm price 1987 1988 1989	35.1 31.8 35.4	35.8 29.0 38.3	35.7 28.2 40.0	36.3 28.4 42.3	35.5 29.7 43.4	34.1 31.6 44.0	33.5 39.4 41.5	32.1 41.6 41.3	31.3 45.7 37.3	30.2 47.8 38.5	34.0 47.6	38.4 37.6	34.3 36.5
New York, 8-16 lbs 1987 1988 1989	755.3 52.8 59.0	58.5 47.1 62.2	60.3 47.0 65.7	58.3 46.9 68.3	55.3 49.2 72.1	55.7 57.1 73.0	56.3 70.8 66.4	56.1 70.5 62.6	56.1 76.0 57.9	54.7 79.6	60.7 76.0	66.5 61.6	57.8 61.2
4-region a			103.0 91.0 97.6	100.4 89.4 98.3	102.8 92.9 100.1	105.1 92.9 101.3	105.8 96.0 104.6	105.1 99.5 104.1	103.3 100.6 102.0	102.6 104.0	90.0 99.2	89.3 97.1	101.2 95.7
Price spre retail-to 1987 1988 1989	eads, b-consumer: 39.8 29.8 29.8	37.4 35.0 29.9	35.4 33.4 25.7	33.4 33.0 23.2	37.3 35.1 20.7	40.1 24.6 20.7	41.1 23.7 30.2	41.8 21.0 32.3	39.0 17.3 34.2	38.3 16.5	22.0 14.7	13.5 26.7	34.9 25.9
							1982	2-84 = 100					
Consumer p 1987 1988 1989	or. index 3 113.3 107.7 114.2	5/: 111.6 107.2 116.3	112.0 107.2 118.7	109.6 107.5 121.5	111.6 108.3 123.2	111.8 109.3 124.1	112.1 109.8 126.0	111.6 112.4 124.6	109.4 114.2 124.4	109.2 115.5	103.5 113.1	103.9 113.3	110.0 110.5

<sup>1/</sup> Liveweight. 2/ Wholesale, ready-to-cook. 3/ Other poultry CPI.

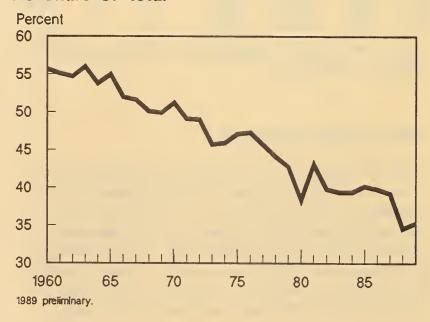
year ago. For 1989 overall, the higher average price reflects the strength in the first half of the year and is expected to be 64-65 cents per pound compared with 1988's 61.5 cents.

### Consumption Increases

Consumption in the third quarter, after a sluggish first half, increased to about 4 pounds per person, a record for the third quarter. Heavy holiday featuring this year could result in record fourth-quarter consumption of about 6 pounds per person, which would result in record consumption for the year of about 16.7 pounds.

Turkey retail prices began declining in August, and fourthquarter retail prices are expected to be below last year's

Figure 1
Fourth-Quarter Turkey Consumption
As Share of Total

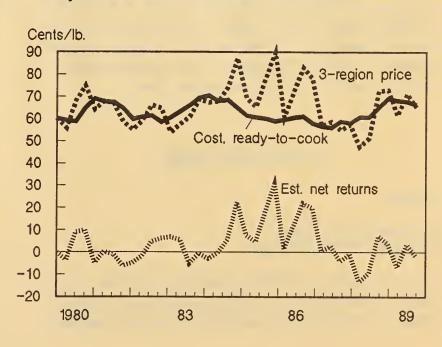


\$1.00 pound as large supplies stimulate featuring. Retail pork prices, in contrast, are expected to be higher than last year, which should favor turkey purchases. Turkey stocks increased by 27 percent during the third quarter to 578 million pounds on October 1, 1 percent above a year earlier but about 7 percent below the record of 1987.

# Net Returns average Slightly Below Breakeven

Average net returns are expected to be slightly negative in the fourth quarter and for all of 1989. This is expected to be the third consecutive year that turkey producers' estimated net returns averaged slightly below breakeven.

Figure 2
Turkey Costs and Returns



Despite the September turnaround in prices, estimated net returns were below breakeven in September, the poorest since January. Although returns increased in October, they were still slightly negative.

### Production Leaders Gained in 1989

The USDA preliminary estimate of turkeys raised during 1989, 254.7 million birds, is up 5 percent from 1988. North Carolina, Minnesota, and California, the leading States, each showed above-average increases. Their combined share is nearly 49 percent of production in 1989, up from 47 percent in 1988 and 43 percent in 1980. Arkansas and Missouri also had large increases in production in 1989.

### Growth To Continue in 1990

Turkey production for all of 1990 is expected to be 5 percent greater than in 1989. Production for first-quarter 1990 is estimated to exceed that of a year earlier by 12 percent.

Turkey poult placements in October were up 20 percent compared with a year earlier. However, continued negative net returns in late 1989 may reduce future placements, which could impact second-quarter 1990 production.

Given expectations of large first-quarter 1990 production, turkey prices are expected to weaken. Eastern region wholesale prices are expected to average 55-61 cents a pound during first-quarter 1990, down from 62 cents a year earlier. A lower average annual price is expected for 1990,

Table 5--Turkeys: Number raised, 1985-89

States	1985	1986	Total 1987	all breeds 1988	1989
Ark. Calif. Colo. Conn.	16,000 20,500 2/ 35	16,500 21,900 2/ 40	,000 head 18,000 25,500 2/ 30 3/	18,000 26,500 2/ 30	19,300 30,300 2/ 30
Del. Ga. Ill. Ind. Iowa Kans.	2,631 213 6,941 6,300 275 129	3/ 2,426 347 9,370 7,000 104 125	2,432 698 13,000 8,500 193 133	2,400 1,700 13,200 7,800 226 135	2,100 2,490 13,600 7,600 146 130
Md. 3/ Mass. Mich. Minn. Mo. Nebr. N.H.	129 156 2,300 30,400 12,500 850 28	145 2,700 34,200 13,500 1,437 26	3,000 40,500 15,500 1,942 26	150 3,000 38,500 16,500 1,770	150 3,000 42,500 17,300 1,820
N.J. N.Y. N.C. N. Dak. Ohio Okla.	88 314 31,850 900 2,800	100 343 39,100 1,000 3,100	115 437 48,350 1,240 3,400	100 343 47,900 1,200 3,600	100 368 50,700 1,250 4,400
Oreg. Pa. S.C. S. Dak.	1,300 7,100 2,194 1,723 2/	1,540 7,800 3,900 1,968	1,830 8,000 3,950 2,376 2/	1,800 7,900 5,570 2,370	2,200 8,600 4,100 2,300 2/
Tex. Utah Va. W. Va. Wisc. Oth.	3,082 13,066 2,400 6,150 12,400	1,540 7,800 3,900 1,968 2/ 3,390 14,307 2,220 6,128 12,500	3,731 16,200 2,400 5,450 13,316	3,900 16,300 2,300 2/ 19,250	3,450 2,940 16,100 2/ 17,740
U.S.	185,292	207,216	240,389		254,740

1/ 1988 revised. 1989 preliminary based on turkeys placed September 1, 1988 through August 31, 1989. Excludes young turkeys lost. 2/ Colo., Okla., and Tex. combined to avoid disclosing individual operations. 3/ Maryland and Delaware combined.

57-63 cents per pound compared to 55-61 cents in 1989. With strong production growth, retail turkey prices are expected to continue easing. They could average 90-96 cents a pound during first-quarter 1990 compared to 97 cents in 1989. Conversely, red meat retail prices are expected to be slightly higher in 1990, enhancing prospects for future growth in per capita consumption of turkey.

### **Brollers**

### **Production Growth Continues**

Broiler production is expected to increase about 7 percent 1989, extending the long-run expansion of the 1980's. Total federally inspected production increased 42 percent from 1980 through 1988, from 11.3 billion pounds to 16.1 billion pounds. During this period, per capita consumption increased from 42 to 62 pounds. When 1989 is completed, production from 1980 through 1989 will likely have increased over 50 percent to 17.2 billion pounds, and per capita consumption to 65 pounds. Fourth-quarter broiler production will likely increase 6-7 percent, reflecting a 6-percent increase in chicks placed during September and October.

### Broiler Prices Weaken

Broiler prices fell below year-earlier levels in the second half of 1989, following a strong first half when average prices for the first and second quarters were about 30 and 20 percent, respectively, above 1988. Prices fell in the second half due to increasing total supplies of meats, mainly poultry. Also influencing prices as summer drew to a close were seasonal factors such as the end of summer cookouts and vacations. The 12-city wholesale broiler price averaged about 60 cents per pound in the third quarter, and will likely decline to 50-52 cents in the fourth quarter as large supplies work through the market.

### Positive Net Returns Continue

The broiler industry has experienced eight consecutive quarters of positive net returns, beginning with the first

Table 6--Federally inspected young chicken slaughter, 1988-89

Year	Number	Average weight	Live- weight	Certi- fied RTC
	Million	Pounds	- Millior	pounds -
1988: I II III IV Year	1,267 1,303 1,316 1,272 5,159	4.35 4.30 4.19 4.36 4.30	5,511 5,611 5,530 5,555 22,208	3,996 4,079 4,035 4,015 16,124
1989: I II III IV Year	1,310 1,907 1,411	4.35 4.33 4.29	5,698 6,028 6,048	4,130 4,389 4,394

Table 7--Broiler chicks hatched and pullet chicks placed in hatchery supply flocks, 1987-89

	Broil	er-type chic	ks		Pu	llet chicks hatchery	placed in b supply flock	oroiler s		
Month	th			Mon	thly place	ments	Cun 7-	nulative place 14 months ea	cements arlier	• • • • • •
	1987	1988	1989	1987	1988	1989	1987	1988	1989	1990
				Thou	sands					
January February March April May June July August September October November December	439,442 405,252 456,081 455,679 473,827 461,421 463,321 455,676 433,769 441,893 423,147 469,720	468, 333 432, 813 483, 353 464, 386 487, 027 473, 782 473, 782 473, 394 479, 734 455, 183 456, 819 437, 967 488, 248	481,284 442,816 502,466 493,503 522,896 509,837 511,774 509,291 484,030	4,077 3,699 4,111 4,713 4,055 4,181 3,995 3,95 3,457 4,126 3,763 4,117	3,389 4,038 4,538 3,831 4,197 3,818 3,611 4,962 4,131 3,596 4,150	3,820 3,963 4,396 4,195 4,439 4,330 3,950 4,526 4,345	29,039 29,427 29,523 29,722 30,148 30,242 30,603 30,742 30,926 31,365 32,232 32,693	33,028 33,254 32,805 32,185 32,612 32,264 31,688 31,002 30,859 31,402 31,259 31,999	31,691 31,539 31,470 32,043 32,136 31,194 31,513 31,136 31,281 32,066 32,213 32,690	32,889 33,243 33,619 34,144

quarter of 1988. The combination of continued relatively high broiler prices in the first half of the year and declining feed prices resulted in estimated net returns averaging 12 cents per pound during the first three quarters of 1989. Prices of corn and soybean meal, key feed ingredients for broiler production, declined through much of 1989 in contrast to the drought-induced price increases of 1988. Third-quarter net returns were about 10 cents per pound compared to 15-16 cents a year earlier. Fourth-quarter returns are estimated at 3-5 cents per pound.

### 1990 Outlook

Broiler production in 1990 is anticipated to increase by about 7 percent, similar to 1989. Expansion will be encouraged by current and expected positive net returns. Anticipated lower corn and soybean meal prices in 1990 will partially offset anticipated wholesale broiler price declines. Prices for 1990 are expected to be in the 49-55-cents per pound range, with the first quarter prices 48-54 cents per pound. Returns should remain positive through 1990, given estimates of lower feed costs, but below 1989 levels. Lower average retail prices for whole broilers are anticipated for 1989, down about 10 cents to the low 80-cents-per-pound range.

The size of the hatching egg laying flock is an indicator of the short-run capacity to produce broiler chicks. The flock was up 4 percent on October 1 compared to a year earlier, suggesting intentions to expand production in early 1990. Cumulative broiler pullet placements in the broiler hatchery supply flock also indicate continued production growth in 1990. These placements indicate the future size of the hatching egg flock and potential for longer run broiler production expansion. Pullets placed in September will enter the supply flock in April and their initial offspring will be slaughtered approximately 2 1/2 months later. September placements were 10 percent above a year earlier.

Broiler consumption should continue to increase, given expectations of continued but slower growth in personal income and lower prices of broilers relative to other meats. Per capita consumption of broilers is expected to increase by about 4 pounds to around 69 pounds.

# **Eggs**

### Total Egg Production Down in 1989

Total egg production in 1989 is expected to be down about 3 percent, at 5.6 billion dozen, reflecting industry adjustments to the losses incurred by table egg producers throughout most of 1987 and 1988. Table egg production will likely decline around 4 percent, but hatching egg production will likely be up about 3 percent. Total production in the third quarter was down around 2 percent. Flock rebuilding is occurring, but total production in the fourth quarter is still expected to be 1-2 percent below last year.

# Table Egg Production Declines

Table egg production during the third quarter was down about 3 percent, and fourth quarter production will likely be 2-3 percent below a year earlier. The total laying flock on October 1 was about 3 percent below a year ago, but the hatching egg flock was 4 percent larger. The table-egg-type laying flock was down about 3 percent, reflecting caution on the part of table-egg producers. While net returns in 1989 have been the best in years, producers appear to remember the substantial losses experienced in 1987 and 1988 and flock expansion is not occurring as rapidly as might otherwise be expected. It is likely that some earnings are going to debt repayment, thus contributing to a more solid basis for possible future expansion.

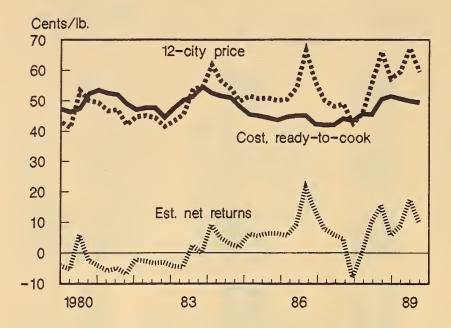
Table 8--Broilers: Eggs set and chicks placed weekly in 15 commercial States, 1988-89 1/

Period 2		Eggs set		Commercial States,	Chicks placed	
Month and day 2/	1988	1989	Change from previous year	1988	1989	Change from previous year
	Tho	usands	Percent	Thousa	nds	Percent
January: 7 14 21 28	120,343 119,110 117,221 116,189	123,924 120,196 123,060 124,909	3.0 0.9 5.0 7.5	97,828 96,217 95,821 95,485	96,455 98,766 99,037 98,472	-1.4 2.6 3.4 3.1
February: 4 11 18 25	120,360 121,008 122,182 123,274	125,503 126,105 126,909 127,505	4.3 4.2 3.9 3.4	94,646 92,688 91,743 95,904	95,785 97,428 99,542 101,011	1.2 5.1 8.5 5.3
March: 4 11 18 25	122,655 122,548 122,294 120,499	127,649 128,064 128,159 127,530	4.1 4.5 4.8 5.8	96,675 98,042 98,992 98,633	100,500 100,464 102,085 102,691	4.0 2.5 3.1 4.1
April: 1 8 15 22 29	123,171 121,617 122,862 121,565 120,460	129,919 130,910 130,855 131,202 130,666	5.5 7.6 6.5 7.9 8.5	98,344 99,206 96,838 98,733 98,592	102,082 101,730 102,758 103,511 104,674	3.8 2.5 6.1 4.8 6.2
May: 6 13 20 27	121,812 122,619 122,293 123,435	130,518 131,217 132,663 132,044	7.2 7.0 8.5 7.0	99,303 98,793 96,985 97,893	105,459 105,331 105,140 105,636	6.2 6.6 8.4 7.9
June: 3 10 17 24	123,014 124,321 123,365 122,384	133,164 133,169 132,761 132,529	8.3 7.1 7.6 8.3	98,610 98,459 99,710 98,698	105,667 106,159 105,478 107,043	7.2 7.8 5.8 8.5
July: 1 8 15 22 29	114,282 120,811 121,312 121,136 121,960	123,627 128,514 128,997 129,885 128,993	8.2 6.4 6.3 7.2 5.8	100,225 99,702 98,092 89,723 96,510	106,540 106,449 106,589 99,736 103,718	6.3 6.8 8.7 11.2 7.5
August: 5 12 19 26	121,325 122,939 122,363 121,971	127,936 128,954 129,445 128,609	5.5 5.0 5.8 5.4	96,789 97,200 97,410 97,189	103,062 102,691 103,580 102,042	6.5 5.6 6.3 5.0
September 2 9 16 23 30	: 119,074 115,378 110,022 116,402 120,398	126,559 122,769 117,860 120,861 126,858	6.3 6.4 7.1 3.8 5.4	98,410 98,148 96,716 94,775 92,289	102,917 103,941 104,093 101,332 97,094	4.6 5.9 7.6 6.9 5.2
October:	118,694 113,223 109,193 114,921	127,043 123,210 117,715 118,689	7.0 8.8 7.8 3.3	85,249 92,763 96,230 94,948	91,722 96,515 101,599 102,015	7.6 4.0 5.6 7.4

<sup>1/ 15</sup> States: Ala., Ark., Calif., Del., Fla., Ga., Md., Miss., N.C., Pa., S.C., Tenn., Tex., Va., and W. Va. 2/ Weeks in 1989 and corresponding weeks in 1988.

Figure 3

Broiler Costs and Returns



# Hatching Egg Production Increases

Broiler hatching egg production increased in 1989 to supply chicks for the broiler industry expansion. Broiler hatching eggs produced during September were 4 percent above September 1988, and the hatching egg flock on October 1 was 4 percent greater. Hatching egg production for all of 1989 is expected to be about 4 percent above a year earlier.

### Egg Prices Strong

Egg prices continue strong. The New York wholesale price for large eggs averaged 84 cents per dozen in September and 85 cents per dozen in October compared with 76 and 66 cents per dozen for September and October 1988. The higher prices primarily reflect lower production and some impact from the continued collection of eggs for sale to Mexico. Fourth-quarter prices are expected to be 84-86 cents per dozen compared with 67 cents in the fourth quarter of 1988.

# Net Returns Positive

High egg prices and declining feed costs combined in 1989 to provide egg producers the longest sustained period of posi-

tive net returns in over 10 years. Net returns in the third quarter were about 16 cents per dozen and will likely be 14-18 cents during the fourth quarter. It is unusual, given the normal cyclical nature of egg prices, for average net returns to be positive for all quarters of a year. The last time it occurred was in 1976. Its occurrence in 1989 reflects the reduced production of table eggs throughout the year and the resulting higher prices. Returns in the first quarter of 1990 are expected to continue positive at around 8-12 cents per dozen.

Table 9Estimated cos	Table 9Estimated costs and returns, 1988-89 1/  Production Wholesale										
	cost	S	Wholesa		Net						
Year	Feed	Total	Total	Price	returns						
	Market eggs (cents/doz.)										
1988: I II III IV Year 4/	26.1 27.1 34.1 33.5 30.2	44.3 45.3 52.3 51.7 48.4	64.8 65.8 72.8 72.2 68.9	57.1 54.6 73.6 70.4 63.9	-7.8 -11.2 0.7 -1.8 -5.0						
1989: I 5/ II III Year 4/	32.8 32.2 31.0	51.0 50.4 49.2	71.5 70.9 69.7	82.9 76.1 85.2	11.3 5.2 15.5						
	Broilers (cents/lb.)										
1988: I II III IV Year 4/	15.4 15.3 19.0 19.7 17.3	23.4 23.3 27.0 27.7 25.3	45.6 45.5 50.4 51.4 48.2	45.7 55.7 66.1 57.2 56.2	0.1 10.2 15.6 5.8 8.0						
1989: I 5/ II III IV Year 4/	19.1 18.6 18.2	27.1 26.6 26.2		59.5 67.3 59.6	8.9 17.4 10.2						
real 4/		Turk (cents	(eys (/lb.)								
1988: I II III IV Year 4/	21.9 22.0 25.4 28.6 24.7	35.6 35.7 39.1 42.3 38.4	60.8 60.9 65.2 69.2 64.3	47.6 51.4 72.5 73.0 61.8	-13.2 -9.5 7.3 3.8 -2.2						
1989: I 5/ I I I I I I I I V	27.9 27.5 26.4	41.6 41.2 40.1	68.3 67.8 66.4	61.6 71.3 64.5	-6.7 3.5 -1.9						
Year 4/											

<sup>1/</sup> Costs and prices are weighted by monthly production.
2/ Based on farm cost converted to wholesale market value.
3/ Wholesale prices used are the 12-metro area egg price,
12-city weighted average broiler price, and a weighted average of 8-16 lb. young hens and 14-22 lb. toms in Central, Western, and Eastern Regions. 4/ Weighted average.

Table 10--Young chicken prices and price spreads, 1987-89

Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Avg.
From poiss 1						Cent	s/lb.						
Farm price 1, 1987 1988 1989 Wholesale RTG	31.1 27.1 35.3	30.0 25.7 35.2	29.0 27.5 38.7	29.2 28.0 38.9	29.9 33.5 45.2	27.6 36.7 42.6	27.6 42.1 39.1	31.7 41.9 36.1	27.8 39.2 37.1	25.1 37.5 30.6	26.3 35.0	24.5 35.5	28.3 34.1
12-city avg 1987 1988 1989	51.8 51.8 43.9 58.0	49.8 44.9 58.1	48.5 48.1 62.1	48.6 48.7 63.5	50.5 56.6 70.4	45.5 61.5 67.4	47.0 66.5 62.0	52.6 68.9 57.3	46.4 62.8 59.9	43.2 57.7 51.7	44.6 57.1	39.8 58.8	47.4 56.3
U.S. avg. retail price 1987 1988 1989	82.1 74.0 90.5	83.2 74.5 89.9	80.4 75.3 91.3	79.2 76.0 93.2	78.2 79.6 96.1	77.1 86.8 98.2	75.5 93.7 96.4	78.5 96.1 95.4	79.3 97.5 94.2	79.1 93.2	75.6 89.2	73.6 88.5	78.5 85.4
Price spreads retail-to-co 1987 1988 1989	24.3 23.7 27.3	26.8 24.4 28.6	25.2 21.6 24.9	25.3 20.5 29.4	21.2 16.5 20.2	18.7 18.0 25.1	21.2 22.8 27.7	20.2 21.9 30.9	33.1 29.9 29.4	30.2 28.8	25.2 26.7	26.1 24.0	24.8 23.2
Potail no is	odev							1982-84	= 100				
Retail pr. ir wh. chickens 1987 1988 1989	119.5 107.9 133.7	118.7 109.5 133.2	115.2 110.3 135.6	113.1 111.6 138.0	112.9 117.4 142.9	111.6 125.9 144.7	109.9 137.4 141.7	113.9 140.1 140.8	114.6 142.0 139.1	113.0 136.0	109.2 131.7	107.7 131.0	113.3 125.1

<sup>1/</sup> Liveweight. 2/ 12-city composite weighted average.

Figure 4
Egg Costs and Returns

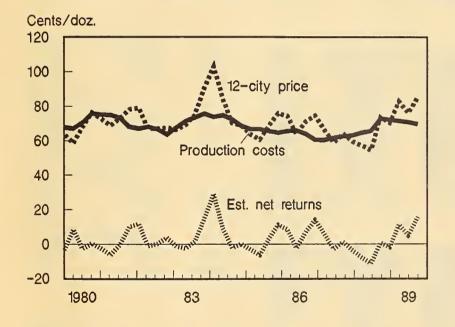


Table	11Layers	on farm	s and eg	gs produ	iced, 1988	-89 1/		
Quar- ters	Numb of lay		E g per	gs layer	Eggs produced			
	1988	1989 2/	1988	1989 2/	1988	1989 2/		
	- Mill	ion -	- Numb	per -	Million	dozen		
I II III IV Annual	285 277 271 275 277	273 268 265	62.2 63.4 62.9 62.2 250.7	61.4 63.4 62.8	1,477.6 1,467.1 1,419.4 1,425.6 5,789.7	1,395.7 1,418.8 1,391.2		

<sup>1/</sup> Marketing year beginning December 1. 2/ Preliminary.

Table 1	2Force	moltings	and lig	ht-type	hen s	laughter,	1987-89
---------	--------	----------	---------	---------	-------	-----------	---------

		Force	Light-type hens slaughtered						
Month	В	eing molte	d	M	olt comple	ted	under Féderal inspection (Number)		
	1987 2/	1988 2/	1989 3/	1987 2/	1988 2/	1989 3/	1987	1988	1989
			Perc	ent			T	housands	
January February March April May June July August September October November	4.2 4.6 8.8 2.4 4.7 9.5 4.9 5.4 4.2	3.8 5.0 3.7 3.9 7.6 4.7 4.5 3.5	4.0 4.3 3.9 5.6 4.8 4.0 3.8 4.3	20.9 19.1 20.1 19.6 18.8 18.5 20.5 21.7 21.3 21.4 22.4	20.8 20.5 19.3 18.6 19.9 21.2 22.1 22.4 22.3 22.6 24.1	23.3 21.5 21.7 21.5 21.4 21.7 21.6 22.7 22.9 22.9	13,002 13,342 13,450 14,428 12,870 13,791 12,364 12,496 10,813 12,037 11,389 15,938	13,574 14,647 15,312 15,034 14,115 13,158 8,601 10,555 9,119 10,426 11,374 13,694	12,136 11,908 13,645 10,528 11,868 10,316 10,191 10,871

<sup>1/</sup> Revisions include data from late reports or other corrections developed by the Food Safety and Inspection Service. 2/ Percent of hens and pullets of laying age in 15 selected States. 3/ Percent of hens and pullets of laying age in 20 selected states.

Table 13--Egg-type chick hatchery operations, 1987-1989

Manah		Hatch		first o	in incubat f month, ch previous y	anges
Month	1987	1988	1989	1987	1988	1989
		Thousands -			- Percent -	
Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.	34,156 35,815 41,708 42,356 40,858 37,256 33,375 34,667 31,800 33,959 30,593 31,242	29,274 28,433 35,615 34,749 35,984 33,049 24,876 27,838 30,918 31,007 29,425 27,181	26,614 27,191 32,723 35,942 38,254 34,707 30,175 32,373 32,710	5 -2 -1 -4 -4 9 10 -7	-4 -24 -17 -17 -16 -7 -23 -24 -10 -13 -11	-20 22 -15 25 -2 17 16 6

Table 14--Shell eggs broken and egg products produced under Federal inspection, 1988-89

	Shell	Egg products produced 1/							
Period	eggs broken	Liquid 2/	/ Frozen	Dried					
	Thou. doz.	Thou.	Thou. lbs.	Thou. lbs.					
1988:									
January February March April May June July August	74,629 75,240 81,978 78,725 88,485 93,003 80,170 90,302	24,055 24,470 27,153 26,516 29,635 30,076 25,572 30,412 27,888 27,803 28,622	26,050 26,412 28,412 28,209 33,072 37,251 30,347 31,675	8,973 8,649 7,712 9,487 10,226 9,034 7,903 9,178					
September October November December	79,125 79,071 80,261 75,407	27,888 27,803 28,622 26,566	30,565 30,198 31,507 34,113	7,327 7,589 8,455 8,198					
JanSept. 1989:	741,657	245,777	271,993	78,489					
January February March April May June July August September October November December	79,780 69,829 69,998 76,547 91,063 89,658 81,260 86,929 76,896	28,584 26,991 31,581 29,355 32,678 31,996 28,762 34,053 33,170	29, 255 25, 612 25, 136 29, 153 34, 600 33, 306 30, 521 34, 325 29, 094	10,208 9,392 7,764 8,865 10,091 10,067 9,192 8,620 7,715					
Jan-Sept. Percent chan from 1988	721,960 ge -2.7	277,170 +12.8	271,002 -0.4	81,914 +4.4					

<sup>1/</sup> Includes ingredients added. All expressed in liquid egg equivalent. 2/ Liquid egg products produced for immediate consumption.

Figure 5
Average Layer Numbers

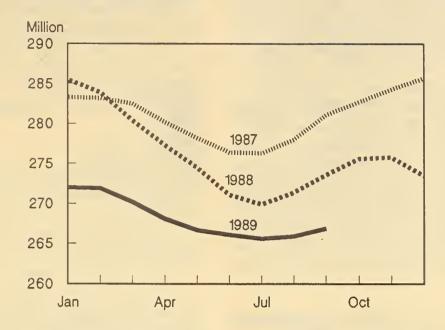


Table 15--Egg prices and price spreads, 1987-89

Table 15Egg	prices ar	nd price	spreads,	1987-89									
Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Avg.
						(	ents/doz						
Farm price 1/ 1987 1988 1989 New York (cartoned)	51.7 39.7 56.2	50.1 37.6 53.7	46.0 41.2 74.5	45.8 36.0 58.1	39.5 32.9 54.3	40.3 36.5 55.6	40.8 49.4 56.6	40.5 50.4 64.2	49.7 56.4 64.4	40.9 51.0 64.2	45.4 51.9	38.8 52.4	44.1 44.6
Grade A, large 1987 1988 1989 4-Region avera Grade A, large	67.1 55.9 72.0 age,	65.2 52.7 74.8	62.0 56.4 92.7	62.4 52.1 76.6	55.6 50.9 73.7	58.7 56.8 75.4	59.1 73.6 76.6	63.2 69.5 84.1	68.3 75.6 83.8	60.2 66.0	60.5 65.3	56.9 70.4	61.6 62.1
retail price 1987 1988 1989 Price spreads	86.2 76.0 94.1	82.3 71.8 89.0	80.0 74.0 103.1	78.6 71.9 99.7	76.3 67.8 95.6	71.1 70.5 93.7	76.3 80.3 96.1	73.0 90.9 98.3	83.7 87.4 103.8	77.8 89.6	80.5 83.9	73.1 83.3	78.3 79.0
retail-to-com 1987 1988 1989	17.4 19.0 18.2	14.5 18.2 18.6	16.5 14.9 10.2	15.3 20.0 23.1	20.8 16.5 21.2	12.7 13.0 17.2	16.4 7.0 18.3	15.7 20.5 12.1	13.6 11.2 16.7	18.4 22.0	18.4 16.0	15.4 10.1	16.3 15.7
								198	2-84 = 1	100			
Consumer pr. index:													
1987 1988 1989	100.8 90.1 112.0	97.8 85.5 106.1	93.9 87.9 122.9	91.1 85.0 117.6	88.5 81.8 112.6	84.1 83.6 110.6	87.8 95.1 112.8	85.8 104.2 115.2	97.6 103.1 124.6	91.4 105.5	93.9 101.2	85.5 99.6	91.5 93.6

<sup>1/</sup> Market (table) eggs including eggs sold retail by the producer; data not available prior to 1982. 2/ Price to volume buyers.

# Egg Production To Increase in 1990

Total egg production for 1990 is projected to rise about 3 percent, in contrast to a 2-percent decline in 1989. Hatching egg production is anticipated to increase by around 3-4 percent, mirroring the growth in the broiler industry. Table egg production is likely to increase nearly 2 percent to about 5 billion dozen. Table-egg production increases reflect flock expansion encouraged by strong net returns in 1989. Both egg-type eggs in incubators on October 1 and egg-type chicks hatched during September were 6 percent above a year earlier, indicators that the total flock size will be increasing. It is anticipated that the full effect of this expansion will be realized in the second half of 1990, when production will likely be 2-3 percent greater than in 1989. Production in the first half is expected to be about 1 percent larger in 1988.

### Prices To Be Lower

Prices for 1990 are expected to decline to an average 66-72 cents per dozen, as supplies increase, compared with an estimated 79-81 cents in 1989. First-quarter 1990 prices likely will average around 76-80 cents per dozen, but decline to the mid-to-low 60's in the second half as additional eggs come to market.

### Consumption Steady

Per capita consumption is likely to be around 235 eggs, unchanged from 1989, and at least a momentary pause in the long downward trend. U.S. Poultry Trade

### **U.S. Poultry Trade**

### U.S. 1989 Broiler Exports To Be a Record

Broiler exports for 1989 are expected to exceed 900 million pounds compared to 765 million pounds in 1988. Relatively low U.S. prices for dark meat broiler parts are the primary reason for this growth. Marketing efforts also played a role.

Broiler exports during January-August 1989, at 624 million pounds, were 29 percent above the same period a year earlier. Value was up 26 percent to \$292 million. Exports have been equivalent to about 5 to 6 percent of production compared with 5 last year. Sharp increases to Canada, Hong Kong, and Mexico, reflect slow growth in domestic production and competitive U.S. prices to Canada and Hong Kong, and rapid growth in consumption as well as competitive prices to Mexico. Mexico's policy of restraining food prices has encouraged consumption and imports.

Parts continue to make up 96 percent of total broiler exports and 99 percent of exports to major Pacific Rim countries. Lower U.S. dark meat parts prices provide the competitive edge in most markets. For whole broilers, Jamaica is the largest market and together with Canada and Mexico accounted for nearly two-thirds of the U.S. whole broilers exported.

Table 16--U.S. broiler exports to major importers, January-August 1988-1989

Country or area	1988	1989
Japan Hong Kong Mexico Canada Singapore Jamaica French Polynesia Netherlands Antilles Spain Antigua St. Lucia		230,582 118,928 63,662 46,525 41,601 38,298 8,1210 6,072 5,616 5,174
St. Vincent Other	2,851 68,089	4,056 48,280
Grand Total	484,309	624,186

Table 17--U.S. mature chicken exports to major importers, January-August 1988-1989

Country or area	1988	1989
	1,0	000 lb.
Mexico Netherlands Antilles St. Lucia Canada Aruba Antigua St. Christ-Nevis Japan Dominica Bermuda Grenada Other	4,220 132 12 1,278 40 113 0 2,435 0 61 48 6,484	3,146 2,531 2,000 1,738 844 767 587 522 515 459 400 1,614
Grand Total	14,823	15,123

### First Russian Sales in the 1980's

Russia turned to the U.S. market for poultry meat this fall for the first time since 1980. Actual U.S. exports to the USSR had not been made since 1977. The Soviet purchase of 33 million pounds of leg quarters is the first since the United States embargo imposed in 1980. These purchases provided short-term price strength for dark meat, which sells at a discount to white meat due to the domestic preference for the latter. Wholesale prices of whole legs and leg quarters strengthened temporarily from near-term lows, following the announcement of the Soviet purchase at the end of September.

The long-run potential for continued sales to the Soviet Union is uncertain. Broader Soviet policies toward providing consumer goods and U.S. prices relative to European broiler prices will be among the factors influencing future sales. Russia traditionally imports poultry meat from Eastern European countries, primarily Hungary, and is expected to continue such arrangements. In 1988, Hungary supplied almost 70 percent of the estimated 395 million pounds imported.

### **FEP Broiler Sales Low**

Exports under the Export Enhancement Program (EEP) have played a minor role in the large export sales this year. Estimated broiler sales through October under the EEP totalled about 24 million pounds, slightly less than in 1988, but much lower than in 1987 and 1986. The EC reduced its chicken export subsidy rates in March and again in October 1989.

### Outlook for 1990

World broiler imports are expected to continue to grow moderately in 1990. U.S. broiler exports should again be strong in 1990, and reach approximately the record level of slightly over 900 million pounds estimated for this year. If additional sales to the USSR materialize in 1990 and Mexico continues its policy of increased imports, then U.S. broiler exports would likely attain new highs in 1990. The U.S. should remain reasonably competitive in the world broiler market in 1990. U.S. domestic prices may average slightly lower compared with 1989. The market is expected to remain more open in some countries, such as Japan, Canada and Mexico, but many countries will continue to restrict imports.

# Egg Exports Decline

Total U.S. egg exports during January-August 1989, at about 58 million dozen, were about 33 percent below the same period a year earlier. Value was down about 23 percent to \$53 million. Exports declined to a number of leading markets, including Japan, Hong Kong, and Iraq, but increased to Canada, Mexico and to the Caribbean countries. Egg products made up 55 percent, hatching eggs 26 percent, and table eggs 19 percent of egg exports.

U.S. egg product exports to Japan fell 43 percent. But Japan still purchased 75 percent of the total. The United States became less competitive relative to the EC where egg prices

Table 18--U.S. egg exports to major importers, January-August, 1988-1989 1/

Country or area	1988	1989
	1,000 d	ozen
Japan Canada Hong Kong Mexico Jamaica Iraq Federal Rep of Germany Haiti United Kingdom Thailand Other	43,046 8,569 8,234 3,973 1,435 8,433 2,379 630 839 6 9,923	24, 221 9,878 4,439 4,009 2,730 2,508 1,441 1,162 794 678 6,478
Grand Total	87,467	58,338

<sup>1/</sup> Shell, and shell equivalent of egg products. Number of characters across: 119

did not rise as they did in the U.S. Domestic Japanese prices were also lower, making imports less attractive. Hatching egg exports fell only about 5 percent as Canada imported 18 percent more than last year, partially offsetting a drop in export program sales to Iraq.

Table egg exports through August were 41 percent lower due mainly to reduced EEP sales to the Middle East and to Hong Kong. Table egg exports were higher to Canada under the Free Trade Agreement (FTA) and to Mexico. In August, the Mexican Government purchased 15 million dozen table eggs to reduce food price inflation. However, recent reports indicate that only 9 million dozen may be taken. Most of the exports were scheduled for September, October, and November. Mexico in 1989 will account for 14 to 20 percent of total U.S. egg exports, similar to Canada.

# Egg Imports Up Sharply

Total egg imports in January-August 1989 were approximately 17 million dozen compared with only 3 million dozen during the same period last year. Over 90 percent of imports were shell eggs for breaking, and egg product imports have declined from last year. Higher U.S. prices encouraged breakers to purchase less expensive imported eggs. Imports for 1989, overall, could total about 28 million dozen, the highest level since 1984. Given expected lower U.S. prices next year, imports of eggs should decline in 1990.

# **Outlook for Exports**

For 1989, total egg exports may be down nearly 30 percent from last year's 142 million dozen. Exports under EEP and export credit guarantee programs are down this year, and relatively high U.S. egg prices generally restrain exports. Competition is notably strong from Holland and Finland.

In 1990, expected lower U.S. egg prices should aid a slight recovery in egg exports. The U.S. competitive position versus the EC is expected to improve. Hopefully, this will bolster egg product exports, particularly to Japan. The level of sales to Mexico will also play a role in the outcome for 1990. A 1990 GSM-102 export credit guarantee has been allocated for eggs to Mexico. Finally, the rate of exports under the EEP will also play a role in 1990's exports.

### **Turkey Exports Down**

Turkey meat exports for 1989 are expected to be down about 15 percent from last year, to approximately 44 million pounds. Exports, January-August 1989, at about 27 million pounds, were down 23 percent from a year earlier. Parts made up 82 percent. Higher U.S. prices earlier this year combined with trade restraints, such as in Egypt and West Germany, contributed to the export decline. Egypt has not imported any turkey this year because the government has

Table 19--U.S. turkey exports to major importers, January-August, 1988-1989

Country or area	1988	1989
	1,00	0 lb.
Mexico Canada Western Samoa Hong Kong Ivory Coast Micronesia Japan South Africa Marshall Islands Netherlands St. Vincent Other	3,893 1,034 1,011 1,339 1,464 414 2,100 1,479 637 569 155 20,444	6,980 4,012 1,898 1,829 1,714 966 889 651 583 480 467 6,110
Grand Total	34,539	26,579

severely restricted poultry imports. West Germany sharply restrained imports earlier this year due to a change in definition and an increase in the duty level of seasoned U.S. turkey.

Exports were up markedly to Canada and Mexico. Slow growth in Canadian production combined with an increased import quota under the FTA were factors. In Mexico, turkey production declined while the government policy to maintain consumption with increased imports continues.

### Outlook for 1990

Turkey exports during 1990 are expected to increase by about 10 percent to approximately 48 million pounds. Expectations have been raised by a resolution of the classification issue with West Germany. U.S. exporters expect to meet a stricter definition of seasoned turkey and exports to West Germany should rebound. In addition, recent and expected lower U.S. turkey prices should enhance competitiveness.

# **Livestock and Red Meats**

### Hogs

Net returns to hog producers are improving. Returns above cash expenses have turned positive in second-half 1989, after averaging below breakeven for three consecutive quarters. If favorable returns persist, breeding inventories may soon increase. Additional gilt retention associated with a buildup in breeding inventories would reduce hog slaughter in the near term, but eventually lead to expanded slaughter and pork production. Thus, the trend in hog numbers over the next year appears to point upward.

### Returns To Hog Producers Improve

Feed costs are declining as a result of larger corn and soybean crops in 1989. Costs had risen steeply following the 1988 drought, cutting sharply into producers' returns. In fourth-quarter 1988, net returns after cash expenses fell

below breakeven, and remained negative through secondquarter 1989. Net returns have risen above cash expenses since then and likely will continue to improve through most of 1990.

As of September 1, 1989, the number of hogs kept for breeding was 3 percent below a year earlier. The inventory was reduced during the 1988-89 crop year because of depressed returns and shortened feed grain supplies, but the reduction was small compared with similar periods in the past. Larger cutbacks did occur in some areas, likely among producers who depend on their own corn crop for feed supplies. At the same time, however, some operations expanded inventories. These operations likely had lower production costs, or had sufficient capitalization to proceed with long-range expansion plans.

In any case, the ability of producers to withstand the past year's low returns without a substantial cutback in breeding inventories may indicate that the financial condition of the industry is generally stable. It may also suggest that the industry is poised to resume the cyclical expansion that was underway prior to the 1988 drought. If net returns remain above cash costs, some expansion of the breeding herd is likely.

### Market Hog Inventories Up Slightly

September 1, 1989, market hog inventories were up 1 percent from a year earlier. Most of these hogs were produced from the March-May and June-August pig crops, both of which were also up 1 percent. Combining hogs kept for market and breeding, the inventory of all hogs and pigs on September 1 was unchanged from a year earlier.

Producers indicated intentions to have 1 percent fewer sows farrow during September-November than a year ago.

December 1989-February 1990 farrowing intentions were unchanged.

While the breeding herd is smaller than a year earlier, a higher percentage is being utilized. Summer weather conditions were much more favorable for breeding and farrowing than in 1988, probably accounting for much of this year's increase in efficiency. But apart from weather considerations, breeding herd efficiency is gradually improving because of better management practices. This trend may become more pronounced as the industry consolidates into fewer, larger, and more specialized units.

### Pork Production To Rise Slightly In 1990

If producers carry out farrowing intentions, commercial pork production may rise about 1 percent in 1990. Annual production could reach 16 billion pounds for the first time since 1980. Pork production in 1989 will be up about 1 percent from 1988.

Table 20--Farrow-to-finish hog production costs and returns, 1,600 head annual sales, North Central Region 1/

	1989									
Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	0ct
Cash receipts: 2/ Market hogs (94.25 lbs) Cull sows (5.75 lbs) Total	39.48 1.86 41.34	38.75 1.96 40.71	37.53 1.94 39.47	34.73 1.80 36.53	40.28 1.90 42.18	43.82 1.94 45.76	44.81 1.95 46.76	44.49 2.02 46.51	41.67 2.09 43.76	44.82 2.31 47.13
Cash expenses Feed Corn (345.6 lbs) Soybean meal (70.6 lbs) Mixing concentrates (14.3 lbs) Total feed Other Veterinary and medicine 3/ Fuel, lube, and electricity Machinery and building repairs Hired labor 4/ Miscellaneous Total variable expenses	14.64 11.03 2.89 28.56 0.48 0.76 1.47 2.46 1.38 0.67 35.30	14.40 11.67 2.89 28.96 0.48 0.76 1.47 2.46 1.38 0.67 35.70	14.44 11.67 2.89 29.00 0.48 0.76 1.47 2.46 1.38 0.67 35.74	15.27 11.67 2.89 29.83 0.48 0.76 1.47 2.46 1.38 0.67 36.57	16.20 11.76 2.89 30.85 0.48 0.76 1.47 2.46 1.38 0.67 37.59	15.97 11.76 2.89 30.62 0.48 0.76 1.47 2.46 1.38 0.67 37.36	15.96 11.76 2.89 30.61 0.48 0.76 1.47 2.51 1.48 0.67 37.50	15.60 11.01 2.99 29.60 0.49 0.78 1.56 2.51 1.48 0.69 36.62	15.72 11.01 2.99 29.72 0.49 0.78 1.56 2.51 1.48 0.69 36.74	15.47 11.01 2.99 29.47 0.49 0.49 1.56 2.52 1.48 0.69 36.50
General farm overhead Taxes and insurance Interest Total fixed expenses	1.57 0.70 3.58 5.85	1.54 0.70 3.53 5.77	1.49 0.70 3.42 5.61	1.38 0.70 3.17 5.25	1.60 0.70 3.66 5.96	1.73 0.70 3.97 6.40	1.77 0.70 4.05 6.52	1.82 0.74 3.80 6.36	1.71 0.74 3.58 6.03	1.84 0.74 3.85 6.43
Total cash expenses 5/	41.15	41.47	41.35	41.82	43.55	43.76	44.02	42.98	42.77	42.93
Receipts less cash expenses Capital replacement Receipts less cash expenses	0.19 5.83	-0.76 5.83	-1.88 5.83	-5.29 5.83	-1.37 5.83	2.00 5.83	2.74 5.83	3.53 5.95	0.99 5.95	4.20 5.95
and replacement	-5.64	-6.59	-7.71	-11.12	-7.20	-3.83	-3.09	-2.42	-4.96	-1.75

<sup>1/</sup>The feed rations and expense items do not necessarily coincide with the experience of the individual hog operations and are an average of a group of operators. For individual use, adjust expenses and prices for management, production levels, and locality of operation. 2/ Based on 94.25 lb of barrows and gilts liveweight and 5.75 lb of sows per cwt sold. 3/ Includes costs of feed medication, that is usually included as part of the feed cost. 4/ Based on .204 hours per cwt of liveweight hog marketed. 5/ Does not include a charge for family or operator labor (.732 hours)

Table 21--Corn Belt hog feeding: Selected costs at current rates 1/

Purchased during 1988-89 Marketed during 1988-89	Dec.	Jan. May	Feb. June	Mar. July	Apr. Aug.	May Sept.	June Oct.	July Nov.	Aug. Dec.	Sept Jan.	Oct. Feb.
Expenses: (\$/head)								• • • • • • •			
40-50 lb feeder pig Corn (11 bu)	29.17 27.50	35.25 28.16	34.18 28.38	39.55 28.60	34.74 28.16	34.24 28.49	28.85 27.61	24.25 27.06	30.00 24.64	30.72 24.64	37.27 23.65
Protein supplement (130 lb) Total feed	23.92 51.42	23.21 51.37	23.21 51.59	23.21 51.81	22.04 50.20	22.04 50.53	22.04 49.65	22.29 49.36	22.29 46.94	22.29 46.94	20.93 44.58
Labor & management (1.3 hr) Vet medicine 2/	12.61 2.83	13.47	13.47 2.86	13.47	12.90	12.90	12.90	12.90 2.91	12.90 2.91	12.90 2.91	12.90 2.91
Interest on purchase (4 mo) Power, equip, fuel,	1.13	1.40	1.36	1.57	1.44	1.42	1.20	1.00	1.23	1.26	1.51
shelter depreciation 2/ Death loss	6.89	6.97	6.97	6.97	7.04	7.04	7.04	7.08	7.08	7.08	7.08
(4% of purchase) Transportation	1.17 0.48	1.41 0.48	1.37 0.48	1.58	1.39	1.37 0.48	1.15 0.48	0.97	1.20	1.23	1.49
(100 miles) Marketing expenses Miscel. & indirect	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
costs 2/ Total	0.71 107.54	0.72 115.06	0.72 114.13	0.72 120.14	0.72 112.95	0.72 112.74	0.72 106.03	0.73 100.81	0.73	0.70 1 <b>05.3</b> 8	0.71
Selling price required to cover: (\$/cwt) Feed and feeder costs											
(220 lb) All costs (220 lb)	36.63 48.88	39.37 52.30	38.98 51.88	41.53 54.61	38.61 51.34	38.53 51.24	35.68 48.19	33.46 45.82	34.97 47.55	35.30 47.90	37.20 50.04
Feed cost per 100-lb gain (180 lb) Barrows and gilts,	28.57	28.54	28.66	28.78	27.89	28.07	27.58	27.42	26.08	26.08	24.77
(7 mkts) Net margin	37.06 -11.82	42.37	46.10 -5.78	47.06 -7.55	46.84	44.32 -6.92	47.15 -1.04				
Prices: 40-lb feeder pig											
(So. Missouri) \$/head Corn \$/bu 3/	29.17 2.50	35.25 2.56	34.18 2.58	39.55 2.60	34.74 2.56	34.24 2.59	28.85 2.51	24.25 2.46	30.00	30.72 2.24	37.27 2.15
Protein supp. (38-42%) \$/cwt 4/ Labor & management	18.40	17.85	17.85	17.85	16.95	16.95	16.95	17.15	17.15	17.15	16.10
<pre>\$/hr 5/ Interest rate (annual)</pre>	9.70 11.62	10.36 11.91	10.36 11.91	10.36 11.91	9.92 12.48	9.92 12.48	9.92 12.48	9.92 12. <b>3</b> 6	9.92 12 <b>.3</b> 6	9.92 12.36	9.92 12.15
Transportation rate (\$/cwt 100 miles) 6/ Marketing_expenses	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
(\$/cwt) 7/ Index of prices paid by	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
farmers (1910-14=100)	1193	1207	1207	1207	1220	1220	1220	1226	1226	1226	1227

<sup>1/</sup> Although a majority of operations in the Corn Belt are from farrow-to-finish, relative fattening expenses will be similar. Costs represent only what expenses would be if all selected items were paid for during the period indicated. The feed rations and expense items do not necessarily coincide with the experience of individual feeders. For individual use, adjust expenses and prices for management, production level, and locality of operation. 2/ Adjusted monthly by the index of prices paid by farmers for commodities, services, interest, taxes, and wage rates. 3/ Average price received by farmers in Iowa and Illinois. 4/ Average prices paid by farmers in Iowa and Illinois. 5/ Assumes an owner-operator receiving twice the farm labor rate. 6/ Converted from cents/mile for a 44,000-pound haul. 7/ Yardage plus commission fees at a Midwest terminal market.

Inventory	1988	1989	1990	1989	1990
				1988	1989

		1,000 he	ead	Percent change
March 1 inventory Breeding Market Under 60 lb 60-119 lb 120-179 lb 180 + lb	52,345 7,120 45,225 17,675 10,730 9,135 7,685	52,835 051 4,784 17,528 10,980 9,486 7,790		1 -1 1 -1 2 4
June 1 inventory Breeding Market Under 60 lb 60-119 lb 120-179 lb 180 + lb	56,265 7,530 48,735 20,915 12,015 8,800 7,005	56,000 7,325 48,675 20,742 12,130 8,800 7,003		0 -3 0 -1 1 0
Sept. 1 inventory Breeding Market Under 60 lb 60-119 lb 120-179 lb 180 + lb	58,200 7,260 50,940 19,635 12,685 10,430 8,190	58,445 7,022 51,423 19,761 12,647 10,635 8,380		0 -3 ·1 1 0 2
Dec. 1 inventory Breeding Market under 60 lb 60-119 lb 120-179 lb 180 + lb	55,499 7,057 48,442 18,021 12,401 10,030 7,990			
Sows farrowing Dec. 2/-Feb. March-May Dec. 2/-May June-August SeptNov. June-Nov.	2,726 3,299 6,025 3,078 2,924 6,002	2,689 3,308 5,997 3,044 2,896 5,940	2,678 3/ 3/ 3/	-1 0 0 0 -1 -1 -1
Pig crop Dec. 2/-Feb. March-May Dec. 2/-May June-August SeptNov. June-Nov.	21,077 25,757 46,834 23,454 22,374 45,827	20,933 26,000 46,933 23,754		-1 1 0 1
		Numbe	٢	
Pigs per litter Dec. 2/-Feb. March-May Dec. 2/-May June-Aug. SeptNov. June-Nov.	7.73 7.81 7.77 7.62 7.62 7.62	7.78 7.86 7.83 7.80		1 1 1 2

1/ March and September inventories not available for United States prior to 1988. 2/ December preceding year. 3/ Intentions.

Table 23--Hogs on farms, farrowings, and pig crops, 10 States

1988	1989	1990	1989	1990
			1988	1989
				1707

		1,000 head	Percent change
March 1 inventory Breeding Market Under 60 lb 60-119 lb 120-179 lb 180 + lb	41,345 5,520 35,825 13,875 8,530 7,435 5,985	41,605 5,420 36,185 13,800 8,678 7,555 6,152	1 -2 1 -1 2 2
June 1 inventory Breeding Market Under 60 lb 60-119 lb 120-179 lb 180 + lb	44,065 5,630 38,435 16,415 9,515 7,000 5,505	44,100 5,560 38,540 16,350 9,620 7,010 5,560	0 -1 0 0 1 0
Sept. 1 inventory Breeding Market Under 60 lb 60-119 lb 120-179 lb 180 + lb	45,000 5,460 39,540 15,135 9,885 8,230 6,290	45,800 5,385 40,415 15,500 9,940 8,485 6,490	2 -1 2 2 1 3 3
Dec. 1 inventory Breeding Market under 60 lb 60-119 lb 120-179 lb 180 + lb	43,210 5,335 37,875 13,955 9,747 7,898 6,275		
Sows farrowing Dec. 2/-Feb. March-May Dec. 2/-May June-August SeptNov. June-Nov.	2,123 2,578 4,701 2,359 2,271 4,630	2,109 2,575 4,684 2,380 2,278 3/ 4,658 3/	2,141 3/ -1 2 0 0 1 0
Pig crop Dec. 2/-Feb. March-May Dec. 2/-May June-August SeptNov. June-Nov.	16,489 20,175 36,664 18,007 17,295 35,302	16,439 20,256 36,695 18,604	0 0 0 3
Pigs per litter Dec. 2/-Feb. March-May Dec. 2/-May June-Aug. SeptNov. June-Nov.	7.77 7.83 7.80 7.63 7.62 7.62	Number 7.79 7.87 7.83 7.82	0 1 0 2

1/ March and September inventories not available for United States prior to 1988. 2/ December preceding year. 3/ Intentions.

Table 24--Sow slaughter balance sheet, United States

Item	1900	1707
	1,000	head
December 1 breeding 1/	7,153	7,057
December-February Comm. sow slaughter Gilts added	884 851	963 957
March 1 breeding	7,120	7,051
March-May Comm. sow slaughter Gilts added	873 1,283	975 1,249
June 1 breeding	7,530	7,325
June-August Comm. sow slaughter Gilts added	1,172 902	1,192 889

7,260

1,100 897

7,022

September 1 breeding September-November Comm. sow slaughter Gilts added

Table 25--Commercial hog slaughter 1/ and production

Year	Barrows & gilts	Sows	Boars	Total	Dress- ed wt.	Comm'l- prod.
1986	1	,000 hd		-	lb.	Mil lb.
I II III IV Year	19,272 19,224 17,365 19,223 75,084	920 896 999 927 3,742	187 196 210 179 772	20,379 20,316 18,573 20,330 79,598	175 176 174 178 176	3,570 3,568 3,237 3,623 13,998
1987 I II III IV Year	19,008 17,877 18,201 21,776 76,862	762 846 1,009 888 3,505	170 188 186 170 714	19,940 18,911 19,396 22,834 81,081	178 176 174 178 177	3,540 3,327 3,384 4,061 14,312
1988 I II III IV Year	20,281 19,736 19,968 22,932 82,916	890 941 1,182 1,054 4,068	189 200 228 194 814	21,360 20,877 21,378 24,180 87,795	177 179 177 179 178	3,790 3,727 3,775 4,331 15,623
1989 I II III	20,748 20,682 20,175	943 1,037 1,178	195 220 209	21,886 21,939 21,562	178 179 176	3,887 3,928 3,789

<sup>1/</sup> Classes estimated.

Table 26--Federally inspected hog slaughter 1987 1989 Week ended 1986

		Thou	sands	
Jan. 7 14 21 28 Feb.	1,675 1,654 1,563 1,506	1,683 1,659 1,527 1,500	1,726 1,766 1,605 1,543	1,416 1,721 1,681 1,644
4 11 18 25 Mar.	1,526 1,512 1,501 1,606	1,455 1,502 1,395 1,533	1,535 1,545 1,542 1,595	1,631 1,656 1,675 1,665
11 18 25 Apr.	1,635 1,650 1,556 1,579	1,556 1,578 1,574 1,504	1,610 1,674 1,639 1,631	1,619 1,716 1,702 1,601
1 8 15 22 29	1,518 1,633 1,651 1,619 1,637	1,529 1,553 1,468 1,393 1,453	1,599 1,573 1,655 1,660 1,695	1,648 1,761 1,767 1,813 1,764
May 6 13 20 27 June	1,607 1,560 1,518 1,310	1,475 1,440 1,448 1,232	1,654 1,634 1,577 1,533	1,732 1,658 1,629 1,618
3 10 17 24 July	1,471 1,459 1,373 1,330	1,385 1,372 1,341 1,356	1,323 1,489 1,513 1,503	1,343 1,577 1,589 1,533
1 8 15 22 29	1,118 1,390 1,349 1,281 1,314	1,193 1,360 1,345 1,354 1,334	1,537 1,330 1,537 1,542 1,456	1,500 1,233 1,558 1,518 1,501
Aug. 5 12 19 26	1,338 1,368 1,402 1,419	1,372 1,445 1,404 1,475	1,528 1,571 1,513 1,563	1,543 1,612 1,610 1,610
Sept. 2 9 16 23 30	1,257 1,492 1,504 1,504 1,521	1,548 1,363 1,671 1,621 1,658	1,607 1,517 1,807 1,868 1,803	1,713 1,545 1,888 1,852 1,785
Oct. 7 14 21 28 Nov.	1,555 1,528 1,551 1,580	1,640 1,720 1,664 1,763	1,830 1,838 1,845 1,895	1,810 1,809 1,797 1,739
11 18 25 Dec.	1,576 1,537 1,557 1,308	1,792 1,778 1,772 1,463	1,908 1,827 1,920 1,562	
2 9 16 23 30	1,530 1,548 1,503 1,070 1,258	1,845 1,879 1,729 1,150 1,458	1,956 1,867 1,800 1,668 1,420	

1/ Corresponding dates to 1989: 1986, Jan. 11, 1987, Jan. 10, 1988, Jan. 9.

<sup>1/</sup> December previous year.

Farrowing intentions indicate small year-to-year changes in hog slaughter in the first three quarters of 1990. The June-August 1989 pig crop was 1 percent larger than a year earlier and will supply the bulk of first-quarter slaughter. However, first-quarter 1989 slaughter was somewhat low relative to the previous summer pig crop (even with large imports of Canadian hogs), so a 2-percent increase in pork production is forecast for first-quarter 1990. Second-quarter slaughter will be drawn from the September-November 1989 pig crop, which may be unchanged from a year ago. Farrowing intentions for September-November were down 1 percent, but an increase in the number of pigs saved per litter will probably be offsetting. Even so, hog slaughter during April-June 1990 could be 2 percent less than a year earlier. Second-quarter 1989 slaughter was high relative to the previous fall pig crop, and a more normal relationship is anticipated for next spring. Hog slaughter could remain slightly below a year earlier in third-quarter 1990, based on expecations for this winter's pig crop.

The recent return to more favorable profit margins may encourage hog producers to have more gilts bred this fall and winter. If so, the March-May 1990 pig crop will be enlarged. In turn, the spring pig crop will supply most of the hogs for slaughter in the final quarter of 1990. Thus, a significant increase in fourth-quarter slaughter is possible. The extent of the increase will depend on how aggressively producers respond to the rise in net returns.

### Hog Prices To Show Modest Increase

Barrow and gilt prices at the seven markets may average in the mid-\$40's per cwt in 1990, \$1-2 higher than the past 2 years. Higher prices are likely in the first half of the year, with lower prices prevailing by year-end. Slower income

Table 27--Summer pig crop and hog slaughter

Year	Pig crop June-Aug.	Commercial slaughter, Jan-Mar. 1/	: Slaughter as : percentage of : pig crop
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1984 1985 1986 1987 1988	1,0 25,142 23,260 21,838 21,209 20,273 18,022 21,656 22,239 22,937 26,915 24,417 23,548 21,383 23,361 22,346 22,010 21,158 22,905 23,453 23,754	24,256 22,260 20,225 20,150 18,760 17,432 19,770 19,404 20,040 24,678 23,678 21,714 20,212 21,806 20,871 20,379 19,400 21,360 21,886	Percent  96.5 95.7 92.6 95.0 92.5 96.7 91.3 87.3 87.4 90.0 97.0 97.0 97.2 94.5 93.3 93.4 92.5 94.5 93.3

1/ January-March of the following year.

Source: Economic Research Service.

growth and increased supplies of competing meats may limit price strength in 1990 because both poultry and beef production are expected to rise.

In the first half of 1989, demand for pork at the wholesale level was light compared with previous years. The weak demand added downward pressure to wholesale pork prices, which became very low relative to beef and broiler prices. The low relative price and large supply probably encouraged retail pork features, which became widespread by early fall. As retail sales increased, demand for pork at the wholesale level intensified. At the same time, Japan became an aggressive buyer of pork loins from the United States. The rise in demand largely offset the seasonal increase in supply, and

Table 28--Fall pig crop and hog slaughter

Year	Pig crop SeptNov.		:	Slaughter as percentage of
1970 1971 1972 1973 1974 1975 1976 1977 1978 1978 1979 1980 1981 1982	SeptNov.: 1,000  24,446 22,746 21,213 20,789 17,634 20,562 20,963 23,094 25,326 25,015 22,700 22,231	slaughter, AprJune 1/ 23,609 21,389 19,478 21,014 17,808 16,821 18,743 19,042 21,740 25,039 22,594 20,712 21,666		Percentage of pig crop  Percent  96.6 94.0 91.8 101.1 95.3 95.4 91.2 90.8 94.1 98.9 90.3 91.2 97.5
1983 1984 1985 1986 1987 1988	22,385 21,837 21,474 20,839 22,806 22,374	21,123 21,343 20,316 18,911 20,877 21,939		94.4 97.7 94.6 90.7 94.5 98.1

1/ April-June of the following year.

Source: Economic Research Service.

Table 29--Winter pig crop and hog slaughter

Year	Pig crop DecFeb.	Commercial slaughter, July-Sept.	: Slaughter : percentag : pig crop	as ge of
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986	19,771 20,959 19,252 19,050 18,509 15,287 17,572 18,532 18,807 21,887 23,685 21,045 18,759 20,877 18,757 19,101 18,513	20,619 22,308 19,441 16,875 19,705 15,307 17,982 18,293 18,293 18,554 22,083 22,158 21,277 18,940 21,373 19,455 20,556 18,573	Percent  104.3 106.4 101.0 88.6 106.5 100.1 102.3 98.7 100.9 93.6 101.1 101.0 102.4 103.9 107.6 103.2	
1988 1989	19,442 21,077 20,933	19,396 21,378 21,561	101.4 102.7	

Source: Economic Research Service.

Table 30--Spring pig crop and hog slaughter

:	
1970	

Source: Economic Research Service.

prices rose counterseasonally into the fourth quarter. Fourthquarter slaughter has been lower than the March-May pig crop would suggest, lending further strength to hog prices.

The stronger demand for pork at the wholesale level could carry into the first part of 1990. Thus, barrow and gilt prices may continue above a year earlier in the first quarter despite an increase in pork production. At the seven markets, prices could average in the mid-\$40's per cwt in each of the first two quarters. Average prices may rise to the high \$40's in the summer quarter before declining seasonally in the fall.

Higher wholesale prices likely will cause retail pork prices to increase as well. Wholesale-to-retail spreads may hold steady, after widening in 1989. Prices may be 3-5 cents per pound above a year earlier, averaging near \$1.86 per pound for all of 1990.

### **U.S. Pork Trade**

### Pork Imports Remain Low

Imports of pork from all major sources declined in the first 8 months of the year. Led by large declines from Denmark and Hungary, and a more moderate decline of Canadian pork, total imports between January and August were 19 percent below 1988 levels. Imports of Danish pork for that period were 34 percent below last year and are expected to continue to be below a year ago through the end of the year. Although still below last year's levels, pork production in Denmark has begun to increase. However, the high EC prices, which encouraged the expansion of Danish produc-

tion, have also encouraged increased exports to the rest of the EC. Furthermore, higher Japanese prices relative to those in the United States have made Japan a more attractive export market.

In response to unfavorable returns, Canadian production began declining in the second half of the year and is expected to continue through 1990. Although this should translate into lower pork exports, it should be remembered that labor disputes in the last half of 1988 and early 1989 reduced pork exports and increased live hog exports to the United States. Therefore, while pork exports could trend down in the second half of 1989 they could also be above 1988 levels, especially in the last quarter. For the first 8 months, imports of Canadian pork equaled 322 million pounds, 13

On August 28, the U.S. International Trade Commission (USITC) upheld its preliminary finding of threat of injury from imports of Canadian fresh, chilled, and frozen pork. Therefore, the 8-Canadian-cent per kilogram duty imposed by the Commerce Department in July will remain in effect. Canada has filed two appeals under Chapter 19 of the U.S.-Canadian Free Trade Agreement. The first challenges the Commerce Department method of calculating the level of Canadian subsidy, the second challenges the USITC ruling. It is most likely that the two arguments will be heard by a single panel, with a decision reached within 315 days of the second request.

In addition to requesting that the Binational Dispute Settlement Panel investigate the imposition of the countervailing duty on pork, Canada has requested consultations with the United States under the General Agreement of Tariffs and Trade (GATT) over a provision of the Tariff Act of 1930 added as part of the Omnibus Trade and Competitiveness Act of 1988. This provision allows subsidies paid to producers of a raw agricultural product (hogs) to be passed through to processed products (pork) for the purposes of duty calculation. The Binational Panel can only rule on the application of the subsidy pass-through provision of the Tariff Act in determining the level of subsidy and Canada feels that the provision itself is inconsistent with U.S. obligations under the GATT.

percent below the same period in 1988. For the year, U.S. imports of Canadian pork will probably be about 10 percent below last year's level.

Table 31--Pork: Retail, wholesale, and farm values, spreads, and farmers' share

			Gross			Fa	arm retail spre	ad	
Year	Retail price 1/	Wholesale value 2/	farm value 3/	By-product allowance 4/	Net farm value 5/	Total	Wholesale- retail	Farm- wholesale	Farmers' share 6/
				Cents pe	pound				Percent
1985 1986 1987 I II III IV 1988	162.0 178.4 188.4 185.0 183.4 195.5 189.7	101.1 110.9 113.0 103.8 116.6 124.3	76.2 87.3 87.9 81.8 95.6 100.3 74.0	4.8 4.9 5.2 5.5 5.9 4.3	71.4 82.4 82.7 76.8 90.1 94.4 69.7	90.6 96.0 105.7 108.2 93.3 101.1 120.0	60.9 67.5 75.4 81.2 66.8 71.2 82.3	29.7 28.5 30.3 27.0 26.5 29.9 37.7	44 46 44 41 49 48 37
I II III IV Year 1989	183.9 184.8 185.9 179.0 183.4	104.3 105.1 99.5 95.3 101.0	76.4 78.0 75.0 66.2 73.8	4.6 4.6 4.0 4.6	71.8 73.4 70.4 62.2 69.4	112.1 111.4 115.5 116.8 114.0	79.6 79.7 86.4 83.7 82.4	32.5 31.7 29.1 33.1 31.6	39 40 38 35 38
Jan. Feb. Mar. I Apr. May June II July Aug. Sept. III	181.1 179.3 179.7 180.0 179.5 177.1 178.6 182.8 184.6 184.4	94.3 92.7 91.8 92.9 88.6 95.5 99.6 94.6 100.6 101.3 100.6	71.1 69.5 67.5 69.4 63.0 72.8 78.7 71.5 80.1 79.5 75.0 78.2	4.4 4.3 4.3 4.0 4.4 4.7 4.9 4.9 4.7	66.7 65.2 63.3 65.1 59.0 68.4 74.0 67.1 75.2 74.6 70.3	114.4 114.1 116.4 114.9 120.5 108.7 105.1 111.5 107.6 110.0 114.1 110.5	86.8 86.6 87.9 87.1 90.9 81.6 79.5 84.0 82.2 83.3 83.8	27.6 27.5 28.5 27.8 29.6 27.1 25.6 27.5 25.4 26.7 30.3 27.4	37 36 35 36 33 39 41 38 41 40 38

<sup>1/</sup> Estimated weighted-average of BLS prices of retail cuts from pork carcass. 2/ Value of wholesale quantity equivalent to 1 lb of retail cuts. A wholesale-carcass equivalent of 1.06 is used. 3/ Market values to producer for 1.7 lb of live animal, equivalent to 1 lb of retail cuts. 4/ Portion of gross farm value attributable to edible and inedible by-products. 5/ Gross farm value minus by-product allowance. 6/ Percent net farm value is of retail price.

Imports of pork from Eastern Europe have declined rather dramatically as the crisis in agriculture continued to worsen. Of the three largest Eastern European traders with the United States, imports from Poland and Hungary declined 2 and 38 percent, respectively. Imports from Yugoslavia were up about 1 percent. Although Eastern European countries are desperate for foreign exchange, the condition of the livestock sector in most is such that they cannot meet domestic demand. It is highly doubtful that this situation will improve in the near future.

Therefore, pork imports are expected to continue below 1988 levels for the remainder of the year. Total pork imports for 1989 will probably equal about 950 million pounds. Imports for 1990 are expected increase to about a billion pounds if Danish production continues to increase and U.S. prices rise in response to reduced domestic production. Canadian production declines will continue to limit imports from that country but a substantial increase in the countervailing duty on live hogs could shift imports to pork. Higher U.S. prices could increase imports from Eastern Europe; however, revitalization of the pork sector there will probably not occur until the latter part of the year.

# 1989 Hog Imports Will Exceed 1988

Imports of Canadian hogs for the first 8 months of 1989 equaled 768,366 head, or 66 percent above last year. Since the beginning of the year, when pigs under 110 pounds were classified separately, approximately 14 percent of the swine

Table 32--U.S. pork trade, carcass weight 1/

Country	Amount		January-A	ugust
Country or area	Annual 1988	1988	1989	Percent change
	Mi	llion pour	nds	Percent
Imports Canada Denmark Poland Hungary Other Total Exports Japan	508.8 326.5 128.6 44.2 129.1 1,137.2	371.7 205.7 88.3 30.7 89.6 785.9	321.6 135.1 86.3 18.9 73.0 634.8	-13.5 -34.3 -2.3 -38.4 -18.5 -19.2
Canada Mexico Caribbean Other Total	8.8 34.9 10.8 19.5 195.2	5.6 16.7 5.5 13.3 121.2	8.3 43.6 8.6 14.9 164.9	47.3 160.6 55.8 12.1 36.1

<sup>1/</sup> Data may not add due to rounding. Percent change calculated from unrounded data.

imported from Canada were under 110 pounds. The price differential between western Canada and the United States widened during August but is expected to narrow through the rest of the year as western Canadian prices increase and the Canadian dollar appreciates. A lower differential between Canada and the United States, as well as reduced inventories, should slow the export of hogs to the United States in the last months of the year. Total imports for 1989 will probably be slightly above 900,000 head. Lower inventories, higher domestic prices, an appreciation of the Canadian dollar, plus an expected increase in the countervailing duty on live swine imports from Canada (in response to higher tripartite payments in 1988) will limit hog exports in 1990. If current conditions hold, imports of Canadian hogs could decline to about 600,000 head in 1990.

# Pork Exports Continue to Rise

Pork exports have shown considerable strength through the first 8 months of the year with continued strength expected through the end of 1989. Exports to all major destinations for January-August are 36 percent higher than last year. Although exports to both Mexico and Japan remained strong, up 161 percent and 12 percent, respectively, much of the year-over-year increase was a result of weak export sales in the first quarter of 1988. Continued export strength is expected through the end of the year. As Japan enters its traditional Christmas-New Year buying period, exports will probably be slightly higher than last year. Taiwan's share of the Japanese market has declined as a result of increased domestic consumption during an election and labor shortages in the packing industry.

Mexico's president recently announced that the policy of keeping domestic food prices low would continue through March of 1990. This should lead to continued purchasing of U.S. hogs and pork products. As of October 1, Mexico lifted its restrictions on live hog imports from the United States. This could increase live hog exports but the 20-percent tariff

Table 33--U.S. live hogs trade 1/

	Annual		January-	August		
Country or area	Annual 1988	1988	1989	Percent Change		
		1,000 head	d	Percent		
Imports Mexico Canada	.6	.6	0	••		
Total Under 110 Total	835.1 lbs 835.9	461.9 462.5	768.4 107.8 768.7	66.4 66.2		
Exports Venezuela Mexico	2.5 84.4	1.5	3.1 66.0	111.0 423.0		
Other Total	4.3 91.3	2.6 16.7	7.2 76.4	175.1 356.2		

1/ May not add due to rounding. Percent change calculated from unrounded data.

for both pork and hogs, imposed in July, could keep exports in the last quarter from reaching last year's levels.

If exports for the remainder of the year follow last year's patterns, 1989 exports could reach an 8-year high of about 240 million pounds. However, exports could drop in 1990 in the face of increased Danish and Taiwan supplies and higher U.S. prices and a weakening of the Mexican import market. Although there has been considerable excitement generated over concessionary sales of pork bellies and other pork products to Eastern Europe and the Soviet Union, it is questionable whether these sales will continue. If Mexico remains committed to importing basic foodstuffs and the dollar continues its current pattern vis-a-vis the yen, U.S. exports in 1990 could remain above the 200- million pound level.

### Cattle

# Forage Supply Improvement Continues

Pasture and range feed conditions in most areas improved dramatically in late spring and summer. Conditions on May 1 were rated 11 points below the 1978-87 average. Rains in late May resulted in better-than-normal improvement throughout the summer and conditions on October 1 were only 1 point below average. However, progress slowed in October and on November 1 conditions were rated 70, well above the 59 of a year ago but 6 points below the 1978-87 average. In spite of the improvement in most areas, conditions on November 1 were below the year-earlier and the 1978-87 average in Arizona, Nebraska, Louisiana, and New Mexico. Conditions in Texas and North Dakota were rated as severe drought, while Minesota, Nebraska, South Dakota, Utah, and Wyoming were rated very poor.

Improved conditions in most areas, a low cattle inventory, and a less-than-seasonal dropoff in conditions during summer resulted in later marketings of stocker cattle off pasture and cow culling. Continued favorable conditions and poor feedlot returns may result in more stocker cattle being overwintered outside feedlots. Wheat planting and emergence in the primary wheat grazing areas of Kansas, Oklahoma, and Texas are well above average, although soil moisture conditions are somewhat limiting in Texas and Oklahoma. A similar situation occurred last year, resulting in many cattle being forced off wheat pasture in late fall-early winter. Conditions appear favorable for good wheat pasture in early November, but all three areas, particularly Texas and Oklahoma, need moisture to promote additional growth to carry stocker cattle through the period when the wheat plant is dormant.

A return to normal growing conditions this past summer raised crop harvest estimates, and also increased forage and hay supplies. Hay production estimates in October were in-

creased by 5 million tons to 150 million tons, 19 percent above last year's drought-reduced harvest, and 3 percent above the 1978-87 average.

The farm price of hay in October averaged \$85.70, only \$1 a ton below a year ago even as supplies expanded. Hay available for sale likely remains low as most producers rebuild stocks. In addition, wet conditions in many areas improved yields, but lowered quality, particularly for dairy-quality alfalfa. Farm prices for alfalfa hay were about unchanged from a year ago, while other hay prices declined \$5.50 per ton.

### Larger October 1 Feeder Supplies

Total feeder cattle supplies on October 1, 1989, were nearly 3 percent greater than last year. There were 17 percent more feeder steers and heifers 500 pounds and over; however, those under 500 pounds increased only slightly. Supplies outside feedlots increased partially because of delayed marketings off grass due to excellent forage conditions in most areas this summer, and the inability of feedlot operators to bid these cattle away from stocker operators. Cumulative 1989 feedlot placements through the first of October in the 13 quarterly reporting States were running nearly 3.5 percent below last year. Negative feedlot returns during much of this year and stronger feeder cattle prices kept summerquarter placements down nearly 5 percent from a year earlier, following a 12-percent drop in the spring quarter. Even larger supplies of stocker-feeder cattle will be available because increased imports of feeder steers from Mexico began

in mid November. Imports are likely to rise above the 112,000 head imported from Mexico during November-December 1988 and will likely be closer to the 293,000 of the same period in 1987.

Seasonally, the largest number of feeder cattle are placed on feed during the fall quarter. This coincides with the seasonal reduction in pasture-carrying capacity, the grain harvest, lower feed costs, and larger available supplies of feeder cattle moving off pasture.

Table 34--October 1 feeder cattle supply

Item	1987	1988	1989	1989/1988
		1,000 hea	ad	Percent change
Calves less than 500 lb On farms July 1 Slaughter July-Sept. On feed Oct. 1 1/ Total	31,100 684 535 29,881	31,000 665 522 29,813	30,900 548 377 29,975	-0.3 -17.6 -27.8 0.5
Steers & heifers 500 + lb 2/ On farms July 1 Slaughter July-Sept. On feed Oct. 1 1/ Total	22,400 7,406 10,093 4,901	21,800 7,458 9,578 4,764	21,700 6,976 9,114 5,580	-0.5 -6.5 -4.5 17.1
Total supply	34,782	34,577	35,555	2.8

1/ Estimated U.S. steers and heifers. 2/ Not including heifers for cow replacement.

Table 35--13-States cattle on feed, placements, marketings, and other disappearance

Year	On feed 1/	Percent change 2/	Place- ments	Percent change 2/	Fed mar- keti <b>ng</b> s	Percent change 2/	Other dis- apperance	Percent change 2/
	1,000 head	Percent	1,000 head	Percent	1,000 head	Percent	1,000 head	Percent
1985 I II III IV Year	10,653 9,688 8,670 7,937	7.3 3.7 3 -11.8	5,315 5,206 5,480 7,365 23,366	-3.4 -6.5 -12.3 -3.0 -6.1	5,907 5,787 5,969 5,224 22,887	3.4 3.0 5.0 -5.1	373 437 244 324 1,378	2.2 -24.9 -9.0 -22.3 -15.6
1986 I II III IV Year 1987	9,754 8,945 7,970 8,197	-8.4 -7.7 -8.1 3.3	5,270 5,221 6,336 6,756 23,583	8 .3 15.6 -8.3	5,763 5,821 5,876 5,396 22,856	-2.4 .6 -1.6 3.3 1	316 375 233 312 1,236	-15.3 -14.2 -4.5 -3.7 -10.3
1907 I II III IV Year 1988	9,245 8,807 8,666 8,992	-5.1 -1.5 8.7 9.7	5,680 5,906 6,590 6,718 24,894	7.8 13.1 4.0 6 5.6	5,747 5,619 6,022 5,603 22,991	3 -3.5 2.5 3.8 .6	371 428 242 338 1,379	17.4 14.1 3.9 8.3 11.6
I II III IV Year	9,769 9,385 9,001 8,591	5.7 6.6 3.9 -4.5	5,824 5,893 5,986 6,650 24,353	2.5 2 -9.2 -1.0 -2.2	5,823 5,859 6,171 5,486 23,339	1.3 4.3 2.5 -2.1 1.5	385 418 225 347 1,375	3.8 -2.3 -7.0 2.7 3
1989 I II III IV	9,408 9,678 8,455 8,061	-3.7 3.1 -6.1 -6.2	6,212 5,177 5,689	6.7 -12.2 -5.0	5,598 5,985 5,856 5,370 3/	-3.9 2.2 -5.1 -2.1	344 415 227	-10.6 7 .9

1/ Beginning of quarter. 2/ Percent change from previous year. 3/ Expected marketings.

Table 36--Cattle on feed, placements, and marketings, 13 States

Item	1987	1988	1989	1989/88
		1,000 head		Percent change
On feed July 1 Placements,	8,666	9,001	8,455	-6
July-Sept. Marketings, July-Sept.	6,590 6,022	5,986 6,171	5,689 5,856	-5 -5
Other disappearance, July-Sept	242	225	227	+1
On feed October 1 Steers & steer calves -500 lb 500-699 lb 700-899 lb 900-1,099 lb 1,100 + lb Heifers & heifer	334 779 2,078 1,978 731	313 595 1,842 2,027 774	223 567 1,531 1,871 924	-29 -5 -17 -8 +19
calves -500 lb 500-699 lb 700-899 lb 900 + lb 900-1,099 1,100 + lb	117 619 1,358 968 NA NA	129 529 1,325 1,025 NA NA	95 456 1,175 1,186 1,022 164	-26 -14 -11 +16
Cows	30	32	33	+3
Marketings, OctDec.	5,603	5,486	5,370 1/	-2

<sup>1/</sup> Intentions.

Table 37--7-States cattle on feed, placements, and marketings

Year	On feed	Percent change 1/	Net placements	Percent change 1/	Marketings	Percent change 1/	Other dis- appearance	Percent change 1/
	1,000 head	Percent	1,000 head	Percent	1,000 head	Percent	1,000 head	Percent
1987 Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.	7,643 7,304 7,163 7,232 7,233 7,560 7,193 6,693 6,818 7,535 8,364 8,412	-3.5 -4.7 -2.2 8 +1.8 +6.5 +9.9 +5.7 +6.5 +10.6 +10.8 +7.5	1,464 1,337 1,630 1,542 1,841 1,335 1,203 1,847 2,358 2,529 1,526 1,221	-2.0 +18.5 +4.2 +6.7 +13.4 +21.9 -18.7 +6.6 +15.4 +8.9 -11.6 -8.3	1,803 1,478 1,561 1,541 1,514 1,702 1,703 1,722 1,641 1,700 1,478 1,567	+3.0 +.5 -2.0 -5.5 -7.4 +3.3 +.7 +3.8 2 +7.1 +2.1 +3.5	127 105 89 139 143 87 71 68 71 85 103	+46.0 +14.1 +3.5 15.8 +8.3 +29.9 +10.9 -2.9 +20.3 +4.9 +18.4 +14.4
1988 Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.	8,066 7,869 7,587 7,746 7,519 7,819 7,431 6,855 6,689 7,144 7,934 8,000	+5.5 +7.7 +5.9 +7.1 +4.0 +3.4 +3.3 +2.4 -1.9 -5.2 -5.1	1,557 1,253 1,742 1,382 2,024 1,309 1,184 1,594 2,102 2,391 1,573 1,286	+6.4 -6.3 +6.9 -10.4 +9.9 -1.6 -13.7 -10.9 -5.5 +3.1 +5.3	1,754 1,535 1,583 1,609 1,724 1,697 1,760 1,760 1,647 1,601 1,507 1,521	-2.7 +3.9 +1.4 +4.4 +13.9 -3 +3.3 +2.2 +.4 -5.8 +2.0 -2.9	106 126 106 139 141 68 62 66 67 84 107	-16.5 +20.0 +19.1 0 -1.4 -21.8 -12.7 -2.9 -5.6 -1.2 +3.9 -3.4
1989 Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct.	7,765 7,700 7,661 8,012 7,847 7,555 7,010 6,568 6,431 6,748	-3.7 -2.1 +1.0 +3.4 +4.4 -3.4 -5.7 -4.2 -3.8 -5.5	1,607 1,470 1,900 1,405 1,455 1,206 1,248 1,542 1,881	+3.2 +17.3 +9.1 +1.7 -28.1 -7.9 +5.4 -3.3	1,672 1,509 1,549 1,570 1,747 1,751 1,690 1,679 1,564	-4.7 -1.7 -2.1 -2.4 +1.3 +3.2 -4.0 -4.6 -5.0	104 115 75 129 164 62 63 76 47	-1.9 -8.7 -29.2 -7.2 +16.3 -8.8 +1.6 +15.2 -29.9

<sup>1/</sup> Percent change is from previous year.

### Fewer Cattle On Feed

Cattle on feed in the 13 reporting States on October 1 were only 94 percent of a year ago, the third lowest level since 1970. Feeder cattle were placed on feed at heavy weights during 1988 and 1989. Thus, on-feed weights are concentrated toward the heaviest groups for steers and heifers. Current expectations are for fed cattle supplies to tighten over the next 2 months because nearly half of the cattle on feed at the beginning of the quarter fell in the heaviest weight categories. Continued slower marketing during October suggests that feedlots are not current and heavy weights are likely to continue through November. Placements this fall will not be marketed until late winter-early spring. Thus, as the last of the heavier cattle are marketed relatively tight fed cattle supplies are expected for the remainder of this year.

Fourth-quarter marketing intentions from the 13 States suggest a 2-percent drop from last year to 5.37 million head. Placement weights remained heavy this past summer and into the fall, therefore, shortening the number of days on feed. However, part of the problem this fall was the difficulty of getting cattle to grade Choice without taking them above 1,200 pounds. The excellent feedlot gain rate of last spring and summer will deteriorate seasonally as fall and winter set in.

### Cattle Slaughter Below Year Ago

Commercial cattle slaughter in 1989 is forecast to fall nearly 4 percent below a year ago to 33.7 million head. The 1.5-million-head decline will take slaughter to the lowest levels since the early 1980's, with steers and heifers accounting for most of the reduction. Steer and heifer slaughter was down 5 and 3 percent, respectively, through the end of the third quarter, and fourth-quarter declines likely will remain near these levels.

Lower nonfed slaughter and fewer feedlot placements over the past two quarters are the primary reason for the drop in steer and heifer slaughter. Also a less-than-seasonal rise in cow and bull slaughter is forecast for the fourth quarter. Cumulative 1989 cow slaughter through the end of October was down 2 percent from a year ago. The average decline has been closer to 8 percent since the first of June as many were culled earlier than normal in late winter-early spring, primarily because of drought. Thus, a smaller seasonal rise in slaughter is expected this fall and could keep fourth-quarter cow slaughter 5 percent below a year ago.

### Heavy Dressed Weights Support Beef Production

The reduction in cattle slaughter has been partially offset by increased dressed weights. Heavier carcass weights can be attributed to a change in the slaughter mix—fewer cows and

nonfeds—and record-heavy carcass weights for feedlot cattle. Fall-quarter beef production may decline 3 percent from a year earlier. A 4-to 5-percent decline in slaughter will be partially offset by a 1-to-2 percent (6 to 8 pounds) year-to-year increase in slaughter weights.

For the year, beef production may decline about 3 percent, with nearly all the drop occurring from lower nonfed slaughter. Fed beef production is about unchanged as heavier weights more than offset an expected 3-percent drop in fed cattle marketings. Fed cattle marketings will comprise about 77 percent of slaughter, up from 70 percent as recently as 1986. Continued heavy feeder cattle placement weights, at least until next summer, and a further increase in fed cattle slaughter in 1990 would result in beef production rising about 1 percent next year. Next year's commercial beef production may show the strongest year-to-year increases in the second half of the year. Fed cattle may make up about 78 percent of the slaughter mix in 1990.

Beef exports will remain a very positive price aspect as the third year of expanded sales to Japan begins. Expected production increases in 1990 will not be sufficient to offset population growth and beef export increases. Thus, per capita beef consumption, on a retail weight equivalence, may decline nearly 1 pound in 1990 from this year's expected 68.5 pounds.

# Cattle and Beef Prices Expected to Rise

Prices for Choice fed steers at Omaha may average \$71 to \$73 this fall, up from \$71 this summer, and for the year, average about \$3 higher than in 1988. Further modest gains are likely in 1990, with prices rising \$1 to \$2. A continued gain in beef's attractiveness to consumers is likely as more fat and bone are removed prior to sale at retail and with additional beef promotion. Retail prices for Choice beef may only rise 1 to 2 percent in 1990, following a 5-percent increase in 1989.

# U.S. Cattle and Beef Trade

### Live Cattle Imports

Imports of live cattle during 1989 are forecast to be 1.3 million head, down only 2 percent because of increased shipments from Mexico this fall. Live cattle are imported mainly from Mexico and to a lesser degree, Canada. Imports of live cattle were down for the first 8 months of 1989 by 14 percent to 882,583 head. Imports from Mexico were down 30 percent to 511,564 head during January-August 1989, and imports from Canada were up 28 percent to 369,888 head. Next year, imports are forecast to decline to 1.1 million head because of lower shipments from Canada.

	Bob veal	Fe	d	Other	
Year	150 lb & below	Formula 150-400 lb	Nonformula 150-400 lb	over 400 lb	Total
			1,000 head		
1986 1987	1,618.6	1,009.3	285.9	281.0	3,194.8
Jan Feb. Mar. Apr. May Jun. July Aug. Sept. Oct. Nov. Dec. Year	101.6 . 99.4 102.8 103.5 117.6	87.1 82.2 90.2 86.8 80.7 94.2 80.8 64.2 91.0 85.6 70.4 89.5	15.1 13.8 15.5 14.4 13.3 12.1 14.8 14.0 19.3 12.3 13.5	29.5 24.7 26.6 23.2 24.0 25.7 26.0 21.8 24.2 25.4 25.1 21.3 297.5	247.6 224.7 251.1 214.9 189.1 214.5 220.2 202.4 228.6 233.1 211.3 241.9 2,679.4
1988 Jan. Feb. Mar. Apr. May Jun. July Aug. Sept Oct. Nov. Pec Year	111.7	82.0 84.9 92.8 78.7 80.7 90.4 74.2 86.3 85.0 84.7 81.4 82.2 1,003.3	12.5 16.2 11.4 10.8 17.1 14.2 14.1 12.2 13.1 11.9 11.3 11.1	18.1 15.2 15.3 14.3 15.4 17.1 12.4 16.7 16.5 15.8 14.1 14.2 185.1	205.1 202.8 215.8 169.1 171.3 203.8 207.0 226.9 207.3 197.0 201.5 202.6 2,410.2
Jan. Feb. Mar. Apr. May June July Aug. Sept	56.4 97.1 87.8	83.6 76.6 84.6 74.5 77.9 81.6 82.8 76.1 68.4	10.3 7.7 9.9 7.3 9.3 8.1 10.3 8.3 10.6	18.3 15.3 16.7 23.9 15.4 15.1 16.6 16.9 16.7	195.6 175.3 194.3 152.0 157.3 161.2 206.8 189.1 173.0

Table 39--Commercial calf slaughter and production

Year	Slaughter	Dressed weight	Production
4007	1,000 head	Pounds	Million pounds
1986 I II III IV Year 1987	873 836 859 839 3,408	148 154 150 145 149	129 129 129 122 509
II II III IV Year 1988	760 651 684 720 2,815	147 155 145 144 148	112 101 99 104 416
I II III IV Year 1989	647 567 665 627 2,506	150 162 149 158 154	97 92 99 99 387
111 11 1209	583 488 548	156 174 153	91 85 84

Table 40--Federally inspected cattle slaughter

k -		Cattle			Steers						Cows				
ed								Total			Dairy	• • • • •	D	airy/tot	al
1	1987	1988	1989	1987	1988	1989	1987	1988	1989	1987	1988	1989	1987	1988	198
-							Thousa	nds						-Percent	
	741 766 707 673	664 723 703 675	543 627 654 640	349 360 336 332	328 359 353 340	256 290 313 310	148 151 124 128	131 126 126 119	119 131 129 124	66 67 61 64	64 62 60 57	64 68 65 62	45 44 49 50	49 49 48 48	5000
	674 621 602 657	646 639 637 640	624 605 644 628	316 303 292 326	335 332 316 314	300 300 319 309	135 119 109 121	116 106 118 121	113 103 119 108	67 59 55 65	58 55 59 60	60 56 64 62	50 50 50 54	50 52 50 49	
	678 646 624 616	616 609 622 607	639 600 588 584	337 311 300 303	304 298 307 304	316 312 288 286	127 124 111 116	114 105 106 108	114 104 119 114	67 58 55 58	56 54 54 53	62 57 61 57	53 47 49 50	49 52 51 49	1
	652 649 681 639 635	617 600 619 670 674	587 609 646 663 652	328 333 349 330 321	316 310 315 349 356	286 300 335 332 332	121 114 119 117 118	106 101 110 108 109	111 118 117 122 122	57 51 52 48 48	51 50 54 50 50	57 57 56 56 54	47 45 44 41 41	48 50 49 46 46	4 4 4
	631 700 695 613	664 664 682 689	666 670 675 673	309 348 355 308	358 344 348 355	326 339 344 342	116 124 131 107	104 109 118 125	128 118 115 115	46 50 49 43	46 47 48 52	56 50 50 50	40 37 37 40	44 43 41 42	4
	680 669 649 680	575 681 678 678	589 662 680 658	351 340 320 339	298 336 338 344	301 328 339 331	117 115 123 129	96 120 129 120	99 114 114 109	50 49 49 52	39 50 53 50	42 49 53 48	43 43 40 40	41 42 41 42	
	621 652 682 672 676	682 609 724 691 694	671 564 691 672 638	316 338 339 333 339	348 306 341 359 346	329 288 335 326 312	109 114 128 121 123	119 108 135 116 112	112 79 122 115 106	47 51 53 51 56	50 51 62 55 57	50 37 56 55 52	43 45 41 42 46	42 48 46 47 51	4 4 4
	694 713 692 706	678 694 688 678	642 673 652 630	335 354 336 341	339 346 337 328	326 332 315 304	123 124 129 132	111 112 115 121	103 107 112 114	58 58 63 66	54 56 54 58	53 54 56 57	47 47 49 50	49 50 47 48	2
	690 624 729 677 684	703 614 692 672 667	646 561 657 666 670	324 293 337 312 324	326 288 333 332 316	316 276 327 316 324	119 100 122 123 116	116 101 124 119 118	111 97 118 117 120	54 44 53 57 53	55 49 58 58 58	49 58 56 56 56	45 44 43 46 46	47 49 47 49	4
•	690 696 676 663	674 680 673 676	660 662 647 652	340 338 319 315	309 311 312 310	310 309 303 297	120 128 136 140	125 127 132 143	126 128 132 142	53 55 57 59	56 56 58 64	57 57 58 60	44 43 42 44	46 44 44 45	4
	649 643 648 576	656 621 623 546		311 301 308 280	304 298 286 260		140 135 141 109	140 134 140 110		59 56 57 46	62 62 63 51		41 41 40 42	44 46 45 46	
•	646 660 638 482 561	648 624 623 622 549		305 311 324 242 291	298 300 306 305 281		139 140 114 80 86	145 140 126 116 90		58 60 51 39 41	67 66 62 58 46		42 43 45 49 48	46 47 50 50 51	

<sup>1/</sup> Corresponding dates to 1989: 1987, Jan. 10; 1988, Jan. 9.

Table 41--Commercial cattle slaughter 1/ and production

V	Steer	s and heife	rs		Buils and		Dressed	Commercial
/ear	Fed	Nonfed	Total	Cows	stags	Total	weight	production
			1,000 he	ad			Pounds	Million pounds
986 I II III IV Year	6,509 6,702 6,780 6,126 26,117	325 683 740 748 2,496	6,834 7,385 7,520 6,874 28,613	1,885 2,006 1,941 2,129 7,961	165 181 191 177 714	8,884 9,572 9,652 9,180 37,288	649 653 651 645 649	5,769 6,246 6,273 5,925 24,213
987 I II III IV Year	6,511 6,477 6,945 6,353 26,286	439 619 461 543 2,062	6,950 7,096 7,406 6,896 28,348	1,652 1,603 1,636 1,719 6,610	163 179 181 166 689	8,765 8,878 9,223 8,781 35,647	656 646 657 666 657	5,754 5,737 6,064 5,850 23,405
988 II III IV Year	6,591 6,757 7,109 6,218 26,675	309 334 349 431 1,423	6,900 7,091 7,458 6,649 28,098	1,529 1,504 1,575 1,729 6,337	152 164 167 161 644	8,581 8,759 9,200 8,539 35,079	664 660 672 674 668	5,700 5,784 6,185 5,755 23,424
989 I II III	6,325 6,897 6,741	162 88 235	6,487 6,985 6,976	1,550 1,541 1,460	143 168 176	8,180 8,694 8,612	676 664 684	5,529 5,777 5,892

<sup>1/</sup> Classes estimated.

Table 42--Beef, Choice Yield Grade 3: Retail, carcass, and farm values, spreads, and farmers' share

Year		Gross	By- product	Net	Gross	By- product	Net	Farm	retail-sp	read	••••••
1001	Retail price 1/	carcass	allow-	carcass	farm value 5/	allow-	farm value 7/	Total	Carcass- retail	Farm- carcass	Farmers' share 8/
					Cents pe	r pound					Percent
1985 1986 1987 I II III	232.6 230.7 242.5 234.6 243.2 246.4 245.9	137.0 134.3 146.7 138.4 157.6 146.9 144.2	1.8 1.2 1.4 1.5 1.4	135.2 133.1 145.3 137.0 156.1 145.5	142.2 140.0 157.6 147.9 167.8 157.8	15.4 15.6 19.7 17.6 20.0 20.1 21.0	126.8 124.4 137.9 130.3 147.8 137.7	105.8 106.3 104.6 104.3 95.4 108.7 110.0	97.4 97.6 97.2 97.6 87.1 100.9	8.4 8.7 7.4 6.7 8.3 7.8 6.8	55 54 57 56 61 56 55
1988 I II IV Year	245.9 254.4 258.9 259.4 254.7	150.7 162.2 151.3 158.2 155.6	1.7 1.8 1.7 1.7	149.0 160.4 149.6 156.5 153.9	166.0 176.2 163.9 171.4 169.4	23.2 23.2 21.6 20.0 22.0	142.8 153.0 142.2 151.4 147.4	103.1 101.4 116.7 108.0 107.3	96.9 94.0 109.3 102.9 100.8	6.2 7.3 7.4 5.1 6.5	58 60 55 58 58
1989 Jan. Feb. Mar. I Apr. May June II July Aug. Sept. III	264.3 265.2 269.5 266.3 269.8 271.9 268.1 269.9 271.6 269.5 270.9 270.7	161.5 162.5 169.0 164.3 171.1 169.3 160.0 166.8 157.9 157.1 153.7	1.7 1.6 1.6 1.6 1.6 1.5 1.5 1.5	159.8 160.9 167.4 162.7 169.5 167.7 158.5 165.2 156.4 155.6 152.3 154.8	175.4 177.7 185.6 179.6 184.7 180.7 172.7 179.3 171.0 173.4 165.1 169.8	19.6 20.1 21.7 20.5 20.4 19.8 20.2 20.1 21.1 21.2 20.9 21.0	155.8 157.6 163.9 159.1 164.3 160.9 152.5 159.2 149.9 152.2 144.2 148.8	108.5 107.6 105.6 107.2 105.5 111.0 115.6 110.7 121.7 117.3 126.7 121.9	104.5 104.3 102.1 103.6 100.3 104.2 109.6 104.7 115.2 113.9 118.6 115.9	4.0 3.3 3.5 3.6 5.2 6.0 6.5 3.4 8.1 6.0	59 59 61 60 61 59 57 55 56 53

<sup>1/</sup> Estimated weighted-average of BLS prices of retail cuts from Choice Yield Grade 3 carcass. 2/ Value of carcass-quantity equivalent to 1 lb of retail cuts. A wholesale-carcass equivalent of 1.476 is used. 3/ Portion of gross carcass value attributed to fat and bone trim. 4/ Gross carcass value minus carcass byproduct allowance. 5/ Market value to producer for 2.4 lb of live animal, equivalent to 1 lb of retail cuts. 6/ Portion of gross farm value attributed to edible and inedible byproducts. 7/ Gross farm value minus farm byproduct allowance. 8/ Percent net farm value is of retail price.

Tabl: 43--Corn Belt cattle feeding: Selected costs at current rates 1/

Tabl: 43Corn Belt cati	le feedi	ng: Sel	ected co	sts at c	urrent r	ates 1/						
Purchased during 1988-89 Marketed during 1989-90	Nov. May	Dec. June	Jan. July	Feb. Aug.	Mar. Sept.	Apr. Oct.	May Nov.	June Dec.	July Jan.	Aug. Feb.	Sept. Mar.	Oct. Apr.
Expenses: (\$/head) 600 lb. feeder steer Transportation	503.40	516.78	516.00	513.36	506.70	495.78	501.00	512.28	522.78	530.40	531.78	529.50
to feedlot-400 miles Corn (45 bu.) Silage (1.7 tons) Protein supplement	5.28 112.50 46.21	5.28 112.50 47.20	5.28 115.20 48.55	5.28 116.10 50.26	5.28 117.00 50.99	5.28 114.98 50.33	5.28 116.55 50.91	5.28 112.73 48.36	5.28 110.70 44.75	5.28 100.80 41.90	5.28 100.80 40.92	5.28 96.53 39.55
(270 lb.) Hay (400 lb.) Total feed costs Labor (4 hrs.) Management (1 hr.) 2/	41.85 17.80 218.36 15.72 7.86	41.85 18.50 220.05 15.72 7.86	41.85 19.10 224.70 15.72 7.86	41.85 20.20 228.41 15.72 7.86	41.85 20.60 230.44 15.72 7.86	39.29 20.40 224.99 15.72 7.86	39.29 20.60 227.34 15.72 7.86	39.29 19.30 219.67 15.72 7.86	38.75 17.00 211.20 15.72 7.86	38.75 16.30 197.75 15.72 7.86	38.75 15.60 196.06 15.72 7.86	38.48 15.20 189.75 15.72 7.86
Vet medicine 3/ Interest on purchase (6 months) Power, equip., fuel,	5.61 29.25	5.61 30.02	5.67 30.73	5.67 30.57	5.67 30.17	5.73	5.73 31.26	5.73 31.97	5.76 32.31	5.76 32.78	5.76 <b>32.8</b> 6	5.77 32.17
shelter, deprec. 3/ Death loss	26.15	26.15	26.46	26.46	26.46	26.74	26.74	26.74	26.87	26.87	26.87	26.90
(l% of purchase)	5.03	5.17	5.16	5.13	5.07	4.96	5.01	5.12	5.23	5.30	5.32	5.30
Transportation (100 miles) Marketing expenses Miscellaneous and	2.31 3.35											
indirect costs 3/ Total	11.31 833.63	11.31 849.61	11.44 854.68	11.44 855.57	11.44 850.48	11.57 835.23	11.57 843.18	11.57 847.61	11.62 850.29	11.62 845.01	11.62 844.80	11.63 835.53
Selling price required to cover: (\$/cwt.) Feed and feeder cost												
(1050 lb.) All costs (1050 lb.) Feed cost per 100 lb.	68.74 79.39	70.17 80.91	70.54 81.40	70.64 81.48	70.20 81.00	68.64 79.55	69.37 80.30	69.71 80.72	69.90 80.98	69.35 80.48	69.32 80.46	68.50 79.57
gain (450 lb.) Choice steers, Omaha	48.53	48.90	49.93	50.76	51.21	50.00	50.52	48.82	46.93	43.94	43.57	42.17
(1000-1100 lb.) Net margin	74.52 -4.87	71.71 -9.20	70.74 -10.66	71.09 -10.39	68.44 -12.56	69.69 -9.86						
Prices: Feeder steer, Choice (600-700 lb.)												
Kansas City \$/cwt. Corn \$/bu. 4/ Hay \$/ton 4/ Corn silage \$/ton 5/ Protein supplement	83.90 2.50 89.00 24.69	86.13 2.50 92.50 27.76	86.00 2.56 95.50 28.56	85.56 2.58 101.00 29.57	84.45 2.60 103.00 30.00	82.63 2.56 102.00 29.61	83.50 2.59 103.00 29.95	85.38 2.51 96.50 28.45	87.13 2.46 85.00 26.33	88.40 2.24 81.50 24.65	88.63 2.24 78.00 24.07	88.25 2.15 76.00 23.27
(32-36%) \$/cwt. 6/ Farm labor \$/hour Interest rate, annual Transportation rate	15.50 3.93 11.62	15.50 3.93 11.62	15.50 3.93 11.91	15.50 3.93 11.91	15.50 3.93 11.91	14.55 3.93 12.48	14.55 3.93 12.48	14.55 3.93 12.48	14.35 3.93 12.36	14.35 3.93 12.36	14.35 3.93 12.36	14.25 3.93 12.15
\$/cwt. per 100 mile 7 Mktg. expenses \$/cwt. Index of prices paid b	8/ 3.35	0.22 3.35	0.22 3.35	0.22 3.35	0.22 3.35	0.22	0.22 3.35	0.22 3.35	0.22 3.35	0.22 3.35	0.22 3.35	0.22 3.35
(1910-14=100)	1193	1193	1207	1207	1207	1220	1220	1220	1226	1226	1226	1227

<sup>1/</sup> Represents only what expenses would be if all selected items were paid for during the period indicated. The feed ration and expense items do not necessarily coincide with experience of individuals for management, production, and locality of operation. 2/ Assumes 1 hour at twice the labor rate. 3/ Adjusted quarterly by the index of prices paid by farmers for commodities, services, interest, taxes, and wage rates. 4/ Average price received by farmers in IA and IL. 5/ Price derived from an equivalent price of 5 bushels corn and 330 lb. hay. 6/ Average price paid by farmers in IA and IL. 7/ Converted from cents/mile for a 44,000-lb. haul. 8/ Yardage plus commission fees at a Midwest terminal market.

Table 44Great Plains o	ustom ca	ttle fee	ding: S	elected	costs at	current	rates 1	/				
Purchased during 1988 Marketed during 1988-89	Nov. May	Dec. June	Jan. July	Feb. Aug.	Mar. Sept	Apr. Oct.	May Nov.	June Dec.	July Jan.	Aug. Feb.	Sept. Mar.	Oct. Apr.
Expenses: (\$/head)												
600 lb. feeder steer Transportation to	490.20	496.98	518.28	513.00	496.20	477.00	485.40	499.02	520.02	511.80	492.00	503.28
feedlot (300 miles) Commission Feed	3.96 3.00	3.96 3.00	3.96 3.00	3.96 3.00	3.96 3.00	3.96 3.00	3.96 3.00	3.96 3.00	3.96 3.00	3.96 3.00	3.96 3.00	3.96 3.00
Milo (1500 lb) 2/ Corn (1500 lb) 2/ Cotton seed meal	72.15 80.85	71.40 82.05	74.70 83.10	72.75 80.70	73.05 81.15	72.00 79.95	72.75 80.25	71.25 78.90	70.65 79.35	77.25 70.50	72.75 68.10	73.35 63.90
(400 lb) Alfalfa hay (800 lb) Total feed cost	53.60 52.00 258.60	53.60 51.60 258.65	56.00 53.20 267.00	56.00 54.00 263.45	56.00 49.20 259.40	56.00 57.60 265.55	56.00 52.80 261.80	56.00 52.80 258.95	51.60 64.00 265.60	51.60 62.00 261.35	51.60 62.00 254.45	53.60 65.20 256.05
Feed handling and management charge Vet medicine	21.00 3.00	21.00 3.00	21.00 3.00	21.00 3.00	21.00 3.00	21.00 3.00	21.00 3.00	21.00 3.00	21.00 3.00	21.00 3.00	21.00 3.00	21.00
Interest on feeder and 1/2 feed	37.94	38.36	42.37	41.91	40.68	41.16	41.60	42.42	41.13	40.48	39.01	38.51
Death loss (1.5% of purchase) Marketing 3/	7.35 . F.o.b	7.45 . F.o.b	7.77 . F.o.b	7.69 . F.o.b	7.44 F.o.b	7.15 F.o.b	7.28 F.o.b	7.49 F.o.b	7.80 F.o.b	7.68 . F.o.b	7.38 F.o.b	7.55 F.o.b
Total	825.06	832.41	866.38	857.01	834.69	821.82	827.04	838.84	865.51	852.26	823.80	836.35
Selling price required to cover: 4/ \$/cwt. Feed and feeder cost (1056 lb) All costs Selling price 5/ Net margin	70.91 78.13 75.30 -2.83	71.56 78.83 71.71 -7.12	74.36 82.04 71.28 -10.76	73.53 81.16 73.88 -7.28	71.55 79.04 69.75 -9.29	70.32 77.82 72.09 -5.73	70.76 78.32	71.78 79.44	74.40 81.96	73.21	70.69 78.01	71.91 79.20
Cost per 100 lb. gain: Variable cost less interest \$/cwt. Feed costs \$/cwt.	57.99 51.72	58.02 51.73	59.75 53.40	59.03 52.69	58.17 51.88	59.34 53.11	58.62 52.36	58.09 51.79	59.48 53.12	58.61 52.27	57.17 50.89	57.52 51.21
Prices: (\$/cwt) Choice feeder steer 600-700 lb. Amarillo	81.70	82.83	86.38	85.50	82.70	<b>79.</b> 50	80.90	83.17	86.67	85.30	82.00	83.88
Transportation rate \$/cwt/100 miles 6/ Commission fee \$/cwt. Milo \$/cwt. Corn \$/cwt.	0.22 0.50 4.66 5.24	0.22 0.50 4.61 5.32	0.22 0.50 4.83 5.39	0.22 0.50 4.70 5.23	0.22 0.50 4.72 5.26	0.22 0.50 4.65 5.18	0.22 0.50 4.70 5.20	0.22 0.50 4.60 5.11	0.22 0.50 4.56 5.14	0.22 0.50 5.00 4.55	0.22 0.50 4.70 4.39	0.22 0.50 4.74 4.11
Cottonseed Meal (41%) \$/cwt. 7/ Alfalfa hay \$/ton 8/	13.40 100.00	13.40 99.00	14.00 103.00	14.00 105.00	14.00 93.00	14.00 114.00	14.00 102.00	14.00 102.00	12.90 130.00	12.90 125.00	12.90 125.00	13.40 133.00
Feed handling and management \$/ton Interest, annual	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
rate 9/	12.25	12.25	13.00	13.00	13.00	13.50	13.50	13.50	12.60	12.60	12.60	12.20

<sup>1/</sup> Represents only what expenses would be if all selected items were paid for during the period indicated. The feed ration and expense items do not necessarily coincide with experience of individual feedlots. For individual use, adjust expenses and prices for management, production level, and locality of operation. Steers are assumed to gain 500 lb in 180 days at 2.8 lb per day with feed conversion of 8.4 lb per pound gain. 2/ Texas Panhandle elevator price plus \$0.15/cwt handling and transportation to feedlots. 3/ Most cattle sold f.o.b. at the feedlot with 4-percent shrink. 4/ Sale weight 1,056 lb (1,100 lb less 4-percent shrink). 5/ Choice slaughter steers, 900-1100 lb, Texas-New Mexico direct. 6/ Converted from cents per mile for a 44,000-lb haul. 7/ Average prices paid by farmers in Texas. 8/ Average price received by farmers in Texas plus \$30/ton handling and transportation to feedlots. 9/ Prime rate plus 2 points.

Mexico's export year for feeder steers runs from September through August. Last year, the Mexican government abolished the Export Quota System and instituted a system which sets an export tariff of 20 percent per head (minimum of US\$60) for exports up to 500,000 head. This tax has been reduced to 10 percent or \$30 per head. The export quota has also been increased to about 700,000 head. As a result, the flow of cattle from Mexico to the United States is likely to be quite heavy in the last quarter of this year and early 1990. The tariff is scheduled to be reduced in September 1990 to 5 percent and reduced again in September 1991 to 1.67 percent. In September 1992, the tariff will be eliminated.

The extended dry period in Mexico negatively affected pastures and range, and production of beef in 1989 increased because of distress slaughter. Inventories are down this year and are expected to continue to decline because the fixed official price for beef has been set low to help consumers and provides little incentive for producers to expand. This makes sales of feeder steers to the United States even more attractive.

U.S. imports of Canadian cattle are unusually high this year. Most of the increase, according to Canadian statistics, is in slaughter cows and heifers. Dairy producers, particularly in eastern Canada, are liquidating herds to decrease manufacturing milk production. In western Canada, dry weather added to the cow disposal. Canadian cattle inventories are expected to increase marginally this year and next.

U.S. cattle imports are forecast to decline next year mainly because of fewer imports from Canada. The new slaughter facility in Alberta should draw upon fed cattle that might otherwise be exported and dairy herd liquidation should slow.

### More U.S. Beef and Veal Exported to Japan

U.S. beef and veal exports are forecast to increase by 46 percent in 1989 to 993 million pounds, carcass weight. An additional increase of 12 to 15 percent is likely next year. In January-August 1989, U.S. exports of beef and veal rose 66 percent to 684 million pounds, with about 75 percent of the beef and veal shipped to Japan. The Japanese reportly have taken about two-thirds of the 344,000 metric tons, product weight, agreed to under their quota in the first half of their fiscal 1990. However, storage facilities in Japan, mainly for frozen beef, are strained. At present, a substantial amount of the meat sent from the United States is frozen. A larger share of the Australian beef is chilled.

The heavier Japanese imports during the beginning of the year may have been the result of stockpiling, with importers anticipating greater consumer demand than has materialized. Also, the infrastructure to handle the additional beef needs to be developed, and there apparently is some difficulty finding outlets for frozen beef. Retail beef prices also do not yet

Table 45--U.S. live cattle trade 1/

		Annual	January-August		
Country or area	•••••	1988	1988	1989	Percent change
			Thousand	head	Percent
Imports Mexico Canada Other Total Exports		844.2 487.5 .5 1,332.2	732.0 290.0 0.4 1,022.4	511.6 369.9 1.1 882.6	-30.1 27.5 200.0 -13.7
Mexico Canada Other Total		257.1 15.3 49.0 321.4	120.6 10.7 29.2 160.5	103.3 8.4 14.9 126.5	-14.3 -21.5 -49.2 -21.2

1/ May not add due to rounding. Percent change calculated from unrounded data.

Table 46--Imports of feeder cattle and calves and hogs from Canada and Mexico

Year	Feeder cattle and calves		
	Canada	Mexico	Canada
		N. mb a a	
		Number	
1987 Jan.	13,615	108,916	48,558
Feb. Mar.	19,154 21,513	131,631 134,011	20,745 32,206 47,763
Apr. May	19,154 21,513 28,569 27,497 35,431 14,568	92.943	47,76 <b>3</b> 31,270
June July	35,431 14,568	46,567 95,977 28,333	31,270 35,143 40,183
Aug.	13,461 11,138	3,419	40,183 34,300 37,560
Sept. Oct.	17,638	0	35,499 31,787 50,849 445,863
Nov. Dec.	17,638 20,549 21,577	4,950 288,173	50,849
Total 1988	244,710	934,932	
Jan. Feb.	28,013 29,193 34,848	304,053 233,635 95,394	58,942 43,759
Mar. Apr.	30.077	95,394 58,169	53,682 55,393 51,366 62,137
May June	44,319	58,169 32,816 5,043	51,366 62,137
July Aug.	25,098 48,177 56,200	0 8	53,360 83,256
Sept. Oct.	56,200	0 178	104.310
Nov.	53,307 56,006	4,184	108,945 106,901
Dec. Total	29,016 476,707	107,805 841,285	53,074 835,125
1989 Jan.	52,285 34,515	105,822 146,996	162,762 103,245
Feb. Mar.	34,515 39,386	152.921	144.106
Apr. May	39,386 46,410 61,756	108,428 9,401 233	65,383 74,488
June July	58,534 19,379 51,205	3,429	70,821 35,796
Aug.	51,205	4,172	111,765

reflect the lower prices for imported beef under the new system. As a result, Japanese imports may slow in late 1989.

The United States has been able to increase market share in the growing Japanese market but the Australians are increasing the number and capacity of feedlots which will give the United States some competition or at least raise the quality of a portion of their slaughter. The grass fed beef sector is expected to continue to provide the largest share of Australia's beef output. The Japanese beef quota will increase next year by another 60,000 metric tons.

Even with output in Australia down this year because of rebuilding herds, their exports to Japan have risen. Beef production is forecast to rise in Australia during 1990, increasing their ability to ship to the Japanese and U.S. markets.

U.S. exports to Korea increased the first 8 months of 1989 to 36 million pounds. In August 1988, the Korean government allowed beef imports which had been banned since 1984. However, imports remained regulated by a strict quota. The South Korean government agreed on November 7 to accept a ruling by the General Agreement on Tariffs and Trade (GATT) against their beef import restrictions. Over the next 90 days, negotiations will be carried out to schedule the opening of the Korean beef market.

### U.S. Beef and Veal Imports Decline

U.S. beef and veal imports for 1989 are forecast to decline 8 percent to 2,180 million pounds, carcass weight, mainly because of the decline in beef from Australia. In 1990, U.S. imports are forecast to increase from Australia but be down from New Zealand. As a result, total imports are likely to be 2,140 million pounds.

In January-August 1989, U.S. beef and veal imports were down 18 percent to 1,480 million pounds. Australia, usually the major supplier, was down 42 percent. As Australian output declined and demand for beef in the domestic market and Japanese and Korean markets increased, Australian saleyard prices increased. This reduced the attractiveness of Australian beef in the U.S. market. Saleyard prices have softened and U.S. imports should begin to pick up from Australia.

Table 47--U.S. beef and veal trade, carcass weight 1/

• • • • • • • • • • • • • • • • • • •	A		January-August		
Country or area	Annual 1988	1988	1989	Percent change	
	Mi	llion pou	nds	Percent	
Imports Australia New Zealand Canada Brazil Argentina Central America Other Total	1,081.5 641.0 172.0 117.8 184.3 177.2 32.0 2,405.8	825.5 542.1 110.1 79.9 120.8 105.2 18.6 1,802.1	480.4 571.3 145.3 52.1 116.2 98.2 16.0 1,479.6	-41.8 5.4 32.0 -34.8 -3.8 -6.7 -13.9 -17.9	
Exports Japan Canada Caribbean Korea, S. Other Total	503.5 52.6 22.9 16.1 94.9 690.0	302.2 34.2 14.5 1.2 60.2 412.3	510.8 61.1 13.3 36.5 62.8 684.5	69.0 78.5 -7.9 3,058.0 4.2 66.0	

<sup>1/</sup> Data may not add due to rounding. Percent change calculated from unrounded data.

Imports from New Zealand, however, were up 5 percent during January-August 1989. Dry weather until about May increased slaughter in New Zealand. About three-fourths of the beef produced there is exported and three-fourths of the exports go to the United States. Exports are expected to fall through next year as output declines. The New Zealand cattle inventory continues to decline because of the large number of cows slaughtered due to the effects of the drought and high interest rates.

# **Sheep and Lambs**

Sheep producers continue to increase the level of culling in their breeding herds. This is evident in the increased sheep and lamb slaughter, which accounted for the rise in production in the third quarter, and the increased exports of sheep to Mexico. A large proportion of the increase in sheep and lamb slaughter was mature sheep, 20,000 head out of a 27,000-head increase. More slaughter in the third quarter was consistent with the trend in mature sheep slaughter for the year, up 17 percent. Part of this rise in slaughter was due to the closing of the Mexican border to live sheep from the United States for several months. Exports of live sheep to Mexico were 207,000 head through August 1989, up from 62,000 head for that period of 1988. Continued culling of mature sheep raises questions about the expansion in the sheep industry.

Lamb and mutton production in the third quarter of 1989 was 82 million pounds, up 2 million pounds from 1988. Fourth-quarter lamb and mutton production is expected to be 83 million pounds, down slightly from 1988. Production for 1990 is expected to be 330 million pounds, down 2 million pounds from 1989.

Table 48--Commercial sheep and lamb slaughter 1/ and production

Year	Lambs	Sheep	Total	Dressed weight	Produc- tion
		1,000 hd.		lb.	Mil lb.
1986 I II IV Year	1,438 1,246 1,324 1,306 3,514	72 97 80 72 321	1,510 1,343 1,404 1,378 5,635	60 58 58 60 59	90 78 81 82 331
1987 I II III IV Year	1,213 1,211 1,241 1,253 4,918	57 79 75 70 281	1,270 1,290 1,316 1,323 5,199	60 58 59 61 59	76 75 77 81 309
1988 I II III IV Year	1,292 1,178 1,255 1,265 4,990	62 82 80 79 303	1,354 1,260 1,335 1,344 5,293	63 63 60 62 62	85 80 80 84 329
1989 I II III	1,306 1,197 1,263	66 96 101	1,372 1,293 1,364	63 62 60	87 80 82

<sup>1/</sup> Classes estimated.

Prices for slaughter lambs at San Angelo averaged \$66.29 for third-quarter 1989, up from \$59.02 in 1988. Fourth-quarter prices are expected to range between \$62 and \$64, unchanged from a year ago. Slaughter lamb prices are expected to average \$66.72 in 1990, up slightly from this year.

#### U.S. Feeder Lamb Imports

Imports of lambs and sheep during January-August 1989 reached 106,676 head from 24,775 last year. Sheep imports have traditionally been mainly from Canada. However, 82,389 head have been imported this year from New Zealand and placed in special quarantive confinement facilities in Portland, Oregon, for about a month and then moved into feedlots.

With the investment in the facilities and the initial outlook for lamb prices to be marginally above present levels, lambs should continue to be imported next year. However, it is possible that imports could be affected by Government intervention because the American sheep industry has petitioned the Commerce Department to have the countervailing duty on New Zealand lamb meat extended to include live lambs.

#### U.S. Lamb and Mutton Imports

Total U.S. lamb and mutton imports were up 11 percent in the first 8 months of 1989. Fresh or frozen lamb was up 17 percent to 25 million pounds, carcass weight. Lamb is supplied primarily by Australia and New Zealand but mutton comes mainly from Australia. There has been considerable promotion and advertising for imported lamb in selected areas in the Eastern United States. This promotion has increased the consumers' awareness of lamb.

Table 49--Average retail price per pound of specified meat cuts

ear and item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Choice Beef:				,		Dollars						
Ground chuck 1987 1988 1989	1.69 1.74 1.81	1.65 1.74 1.80	1.68 1.75 1.85	1.70 1.74 1.82	1.70 1.74 1.82	1.71 1.77 1.80	1.71 1.75 1.81	1.72 1.74 1.82	1.72 1.77 1.82	1.71 1.78	1.74	1.75
987 1988 1989	1.30 1.31 1.40	1.27 1.32 1.37	1.28 1.34 1.43	1.29 1.34 1.42	1.32 1.36 1.44	1.30 1.39 1.44	1.31 1.37 1.44	1.32 1.37 1.45	1.32 1.37 1.46	1.33	1.35	1.32 1.40
Chuck roast, bone in 1987 1988 1989 Round roast, boneless	1.68 1.64 1.81	1.64 1.74 1.91	1.63 1.69 1.87	1.70 1.72 1.89	1.65 1.80 1.90	1.71 1.78 1.86	1.70 1.70 1.86	1.66 1.67 1.78	1.67 1.74 1.88	1.72	1.71 1.74	1.66 1.80
1987 1988 1989 Rib roast, bone in	2.54 2.56 2.75	2.47 2.61 2.75	2.49 2.67 2.76	2.45 2.60 2.77	2.59 2.61 2.78	2.56 2.66 2.73	2.50 2.63 2.73	2.51 2.64 2.71	2.57 2.64 2.78	2.58 2.60	2.58 2.68	2.56 2.68
1987 1988	3.44 3.57 4.11	3.44 3.59 4.04	3.37 3.66 4.06	3.29 3.75 4.16	3.48 3.72 4.24	3.64 3.93 4.06	3.69 4.02 4.34	3.67 4.04 4.29	3.60 4.12 4.19	3.63 4.12	3.64 4.10	3.57 4.03
1987 1988 1989 Sirloin steak, bone in	2.80 2.88 3.07	2.80 2.94 3.09	2.76 2.94 3.12	2.81 3.01 3.14	2.94 3.00 3.10	2.96 3.05 3.06	2.91 2.99 3.11	2.93 2.99 3.12	2.92 3.04 3.10	2.96 2.98	2.92 3.00	2.93
1987 1988 1989 Chuck steak, bone in 1/	2.81 2.99 3.39	2.96 3.04 3.40	2.87 3.12 3.61	3.02 3.18 3.57	3.22 3.35 3.70	3.44 3.49 3.67	3.36 3.54 3.70	3.23 3.39 3.66	3.26 3.45 3.62	3.12 3.30	3.15 3.36	3.16 3.23
1987	1.71 1.61 1.74	1.65 1.62 1.74	1.64 1.64 1.78	1.69 1.65 1.78	1.59 1.67 1.79	1.62 1.71 1.78	1.62 1.70 1.79	1.61 1.69 1.79	1.61 1.70 1.80	1.61	1.62 1.72	1.62 1.71
1987 1988 1989 Porterhouse steak, 1/	3.86 4.31 4.95	3.79 4.27 4.91	3.83 4.33 5.05	4.01 4.43 5.04	4.33 4.54 5.14	4.64 4.90 5.16	4.77 5.18 5.22	4.45 5.20 5.10	4.37 4.86 5.15	4.31 4.84	4.29 4.83	4.27 4.97
bone in 1987 1988 1989 ork:	4.22 4.40 4.74	4.19 4.43 4.76	4.22 4.48 4.86	4.26 4.51 4.86	4.36 4.56 4.89	4.44 4.66 4.87	4.44 4.63 4.88	4.42 4.60 4.89	4.39 4.64 4.90	4.40 4.64	4.44 4.68	4.43 4.68
Bacon, sliced 1987 1988 1989	2.12 1.95 1.80	2.09 1.94 1.80	2.10 1.92 1.79	2.08 1.91 1.75	2.11 1.90 1.68	2.13 1.90 1.69	2.23 1.91 1.71	2.28 1.88 1.72	2.28 1.84 1.72	2.19	2.07	2.02
Chops, center cut 1987 1988 1989	2.72 2.66 2.78	2.70 2.72 2.75	2.64 2.68 2.80	2.74 2.71 2.80	2.78 2.78 2.76	2.97 2.93 2.82	3.01 2.90 2.91	3.00 2.87 2.92	2.98 2.90 2.95	2.92 2.77	2.74 2.67	2.67
Ham, rump or shank half 1987 1988 1989	1/ 1.60 1.63 1.58	1.59 1.57 1.57	1.50 1.60 1.57	1.36 1.58 1.58	1.44 1.58 1.56	1.50 1.62 1.58	1.52 1.62 1.61	1.56 1.62 1.63	1.58 1.61 1.62	1.62 1.59	1.65 1.56	1.60 1.55
Sirloin roast, bone in 1 1987 1988 1989	1.90 1.92 1.88	1.82 1.90 1.88	1.81 1.90 1.88	1.89 1.88 1.88	1.92 1.89 1.86	1.95 1.94 1.89	2.02 1.93 1.92	2.04 1.93 1.94	2.05 1.92 1.93	2.01 1.89	1.95 1.86	1.91 1.85
Shoulder picnic, bone in 1987 1988 1989 Sausage, fresh, pork,	1.15 1.14 1.12	1.10 1.13 1.06	1.06 1.14 1.06	1.03 1.12 1.08	1.08 1.09 1.07	1.03 1.15 1.08	1.11 1.13 1.09	1.14 1.11 1.10	1.16 1.11 1.10	1.19	1.16 1.12	1.16 1.10
loose 1987 1988 1989 iscellaneous cuts:	2.01 2.05 1.92	2.02 1.97 1.94	1.99 1.99 1.92	1.97 2.02 1.93	1.98 2.02 1.94	1.94 1.95 1.93	2.00 1.99 1.99	1.94 2.04	2.01 1.95 2.02	1.92 1.90	1.97 1.89	1.99 1.92
Ham, canned, 3 or 5 lb 1987 1988 1989	2.84 2.77 2.75	2.85 2.75 2.71	2.83 2.71 2.63	2.77 2.73 2.70	2.74 2.74 2.64	2.76 2.73 2.68	2.83 2.77 2.66	2.84 2.73 2.65	2.83 2.74 2.70	2.85	2.78 2.69	2.72
Frankfurters, all meat 1987 1988 1989	1.98 2.02 2.08	1.99 2.04 2.07	1.96 2.05 2.07	1.98 2.01 2.03	1.96 2.02 2.05	2.00 2.02 2.02	1:91 2:01 2:01	2.01 2.02 2.09	1.98 2.00 2.09	2.04	2.04	2.02
Bologna 1987 1988 1989	2.22 2.24 2.22	2.17 2.23 2.24	2.19 2.23 2.23	2.15 2.20 2.24	2.14 2.18 2.23	2.15 2.24 2.24	2.21 2.26 2.24	2.21 2.29 2.27	2.21 2.25 2.34	2.20	2.21 2.28	2.24

<sup>1/</sup> While these specific cut prices are no longer available from the Bureau of Labor Statistics (BLS), ERS uses the BLS index and historical data to estimate these prices monthly.

Source: Bureau of Labor Statistics.

Table 50--Red meat supply and utilization, carcass and retail weight 1/

	Product	ion	Begin-						Total	Per ca	pita
rear	Commer- cial	Farm	ning stocks	Im- ports	Total supply	Ex- ports	Ship- ments	Ending stocks	disap- pearance	Carcass weight	Retail weight
					-Million	pounds			*****	Po	unds
leef: 1988						.=.					
I II IV Year 1989 2/	5,700 5,784 6,185 5,755 23,424	58 25 24 58 165	386 419 332 409 386	703 668 585 423 2,379	6,847 6,896 7,126 6,645 26,354	134 155 188 203 680	16 9 15 4 64	419 332 409 422 422	6,278 6,390 6,514 6,006 25,188	25.6 26.0 26.4 24.3 102.3	18.0 18.3 18.6 17.1 72.1
I II III Year 1990 2/	5,529 5,777 5,892 22,798	58 25 24 165	422 397 322 422	566 533 556 2,180	6,575 6,732 6,794 25,565	212 271 290 993	15 15 15 60	397 319 308 325	5,951 6,127 6,181 24,187	24.0 24.7 24.8 97.3	16. 17. 17. 68.
Year ork:	23,000	165	325	2,140	25,630	1,120	60	325	24,125	96.2	67.
1988 I II III IV Year	3,790 3,727 3,775 4,331 15,623	22 9 8 22 61	347 419 439 352 347	310 287 274 266 1,137	4,469 4,442 4,496 4,971 17,168	25 60 51 59 195	30 30 25 41 126	419 439 352 413 413	3,995 3,913 4,068 4,458 16,434	16.3 15.9 16.5 18.0 66.7	15.4 15.4 17.6 63.
1989 2/ I II III Year 1990 2/	3,887 3,928 3,789 15,829	22 9 8 61	413 470 462 413	251 247 220 950	4,573 4,654 4,479 17,253	55 66 59 240	35 35 35 140	470 462 340 370	4,013 4,091 4,045 16,503	16.2 16.5 16.3 66.4	15.0 15.0 62.0
Year eal:	16,000	61	<b>37</b> 0	1,000	17,431	205	140	375	16,711	66.6	63.
1988 I II IV Year	97 92 99 99 387	4 1 1 3 9	4 5 4 3 4	9 4 6 8 27	114 102 110 113 427	2 2 3 3 10	0 0 1 1 2	54355	107 96 103 104 410	0.4 0.4 0.4 0.4 1.7	0. 0. 0.
1989 2/ I II III Year	91 85 84 345	4 1 1 9	5 7 6 5	0 3 0 0	/ 100 93 91 359	0 0 0	0 0 0 1	7 6 5 5	93 87 86 353	0.4 0.4 0.3 1.4	0. 0. 0.
1990 2/ Year amb and M	345	9	5	0	359	0	1	4	354	1.4	1.
1988 I II III IV Year 1989 2/	85 80 80 84 329	2 1 1 2 6	8 7 9 7 8	19 15 8 9 51	114 103 98 102 394	0 0 0 1 1	0 1 0 0	7 9 7 6 6	107 93 91 95 386	0.4 0.4 0.4 0.4	0. 0. 0. 1.
I I I I I Year 1990 2/ otal red 1988	87 81 82 333 330 meat:	2 1 1 6 6	6 7 8 6 7	16 16 15 60 63	111 105 106 405 406	1 0 1 2	0 0 0 0	7 7 7 7	103 98 98 396 397	0.4 0.4 0.4 1.6 1.6	0. 0. 1.
1988 I II III IV Year 1989 2/	9,672 9,683 10,139 10,269 39,763	86 36 34 85 241	745 850 784 771 745	1,041 974 873 706 3,594	11,543 11,543 -11,830 11,831 44,343	161 217 242 266 886	46 49 41 56 193	850 784 771 846 846	10,486 10,493 10,776 10,663 42,418	42.7 42.7 43.7 43.1 172.2	34. 34. 34. 34. 137.
I II III Year	9,594 9,871 9,847 39,305	86 36 34 241	846 881 798 846	833 796 971 3,190	11,359 11,584 11,470 43,582	268 337 350 1,235	50 50 50 201	881 798 660 707	10,160 10,399 10,410 41,439	41.0 41.9 41.8 166.7	33. 33. 33. 134.
1990 2/ Year	39,675	241	707	3,203	43,826	1,326	202	711	41,587	165.8	133.

<sup>1/</sup> May not add due to rounding. 2/ Forecast. 3/ Beginning in 1989 yeal trade no longer reported seperately.

Table 51--Poultry supply and utilization

'ear	Feder- ally Inspected	Other	Total	Begin- ning stocks	Total supply	Ex- ports	Ship- ments	Ending stocks	Total disap- pearance	Per capit Retail weight
				- Million po	ounds			- • •	Pour	nds
oung ch	icken:	ı								
I II III IV Year 1989	3,996 4,079 4,035 4,015 16,124	18 19 5 13 56	4,015 4,098 4,039 4,028 16,180	25 36 40 32 25	4,040 4,134 4,085 4,060 16,205	163 190 198 214 765	38 38 37 38 151	36 41 32 36 36	3,803 3,864 3,813 3,772 15,253	15.5 15.7 15.5 15.3 62.0
I II III ear 2/ 1990 2	4,129 4,389 4,394 17,212	13 15 16 58	4,142 4,404 4,410 17,270	36 32 34 36	4,178 4,436 4,444 17,306	213 249 235 937	35 35 35 140	32 34 45 35	3,898 4,118 4,129 16,193	15.7 16.6 16.6 65.1
Year	18,485	64	18,549	35	18,584	920	140	30	17,494	69.8
ther ch 1988 I	icken:	28	181	188	369	6	1	197	165	0.7
II III IV Year 1989	150 112 125 540	28 27 20 23 97	177 132 148 638	197 161 147 188	374 293 295 826	7 9 26	1 1 1 3	161 147 157 157	208 138 129 641	0.8 0.6 0.5 2.6
I II III Year	137 135 132 2/ 534	25 24 24 96	161 160 156 6 <b>3</b> 0	157 146 157 157	318 306 313 787	6 5 7 23	1 1 1 4	146 157 160 150	165 143 145 610	0.7 0.6 0.6 2.5
1990 2 Year	540	98	638	150	788	20	4	150	614	2.4
otal ch		14	/ 104	217	/ /00	140	70	277	7 049	14 5
I II IV Year	4,149 4,229 4,147 4,140 16,665	46 46 25 36 153	4,196 4,275 4,171 4,176 16,818	213 232 202 179 213	4,409 4,508 4,378 4,355 17,031	169 194 205 223 791	39 39 38 39 153	233 202 179 193 193	3,968 4,072 3,951 3,901 15,894	16.5 16.6 16.1 15.8 64.6
1989 I II III (ear 2/	4,266 4,524 4,526 17,746	38 39 40 154	4,303 4,563 4,566 17,900	193 178 191 193	4,496 4,742 4,757 18,093	219 254 242 960	36 36 36 144	178 192 205 180	4,063 4,260 4,274 16,803	16.4 17.2 17.2 67.6
1990 2, Year urkey:		162	19,187	185	19,372	940	144	180	18,108	72.2
1988 I II III IV Year	837 981 1,066 1,040 3,923	10 4 19 12 45	846 985 1,084 1,053 3,968	282 339 457 573 282	1,128 1,324 1,541 1,626 4,250	13 11 15 11 51	1 0 0 1 2	339 457 573 250 250	776 855 952 1,364 3,948	3.2 3.5 3.9 5.5 16.0
1989 I II III Year	804 1,104 1,176 2/ 4,164	7 14 17 52	811 1,028 1,193 4,216	250 269 455 250	1,061 1,297 1,648 4,466	8 10 14 44	1 1 1 4	269 455 578 260	783 832 1,055 4,158	3.2 3.4 4.2 16.7
1990 2, Year	4,350	50	4,400	260	4,660	48	4	280	4,328	17.2
tal poi		F.(	5.0/0	405		400	70	P 09 4	. 7//	40.7
I III IV Year	4,986 5,210 5,213 5,180 20,587	56 60 44 48 198	5,042 5,260 5,255 5,229 20,786	495 571 659 752 495	5,557 5,831 5,914 5,981 21,281	182 206 220 235 843	39 39 38 39 156	571 659 752 442 442	4,744 4,928 4,903 5,266 19,841	19.3 20.0 19.9 21.3 80.6
1989 I III III Year 2,	5,070 5,5 <b>3</b> 9 5,702 / 21,910	45 53 57 206	5,114 5,591 5,759 22,116	442 448 646 442	5,556 6,039 6,405 22,558	227 264 256 1,004	37 37 37 148	447 646 782 445	4,845 5,092 5,329 20,961	19.5 20.5 21.4 84.3
1990 2 Year	23,375	212	23,587	445	24,032	988	148	460	22,436	89.4

Table 52--Total red meat and poultry supply and utilization, carcass and retail weight 1/

	Total	Begin-						Total	Per c	apita
Year	production	ning stocks	Im- ports	Total supply	Ex- ports	Ship- ments	Ending stocks	disap- pearance	Carcass weight	Retail weight
Total	ed meat a	nd poul t			-Million po	unds	• • • • • • • • • • • • • • • • • • • •	••••••	Pou	nds
1988		·	•	4						
I II IV	14,799 14,978 15,428	1,240 1,421 1,443 1,523	1,041 974 873	17,080 17,374 17,744	343 423 462	85 88 79	1,421 1,443 1,523 1,288 1,288	15,230 15,420 15,679	62.0 62.7 63.6	53.5 54.1 54.7
Year	15,583 60,790 2/	1,240	706 3,594	17,812 65,624	501 1,729	103 356	1,288	15,921 62,251	64.4 252.7	56.1 218.4
I II III Year	14,794 15,498 15,639 61,662	1,288 1,329 1,444 1,288	833 796 791 3,190	16,915 17,623 17,875 66,140	495 601 606 2,239	87 87 87 349	1,328 1,444 1,442 1,152	15,005 15,491 15,740 62,400	60.5 62.4 63.2 251.0	52.5 54.2 55.0 218.4
1990 Year		1,152	3,203	67,858	2,314	350	1,171	64,023	255.3	223.0

<sup>1/</sup> May not add due to rounding. 2/ Forecast.

Table 53--Egg supply and utilization (population includes military) 1/

Year	Pro- duction	Beginning stocks	Breaking egg use	Imports 2/	Total supply	Exports	Ship- ments	Hatching egg_use 3/	Ending stocks	Consumpt Total	ion Per capita
Total eggs								Million	dozen		
1988 I II III IV Year 1989 4/	1,476.3 1,428.3 1,420.6 1,445.9 5,771.1	14.4 11.7 20.1 17.5 14.4		0.9 0.7 2.1 1.6 5.3	1,491.5 1,440.7 1,442.9 1,465.1 5,790.8	33.7 34.1 33.4 40.6 141.8	6.0 6.4 6.5 25.2	150.2 153.5 150.5 150.0 604.3	11.7 20.1 17.6 15.2 15.2	1,290.0 1,226.5 1,235.0 1,252.8 5,004.2	63.1 59.9 60.1 60.9 244.0
1969 47 I II III IV	1,389.3 1,393.9 1,387.5	15.2 11.7 12.2		1.9 8.2	1,406.3 1,413.8	23.7 21.2	6.5 6.5	155.1 164.8 161.2	11.7 12.2 11.6	1,209.3 1,209.0	58.6 58.4
Year 5/ 1990	5,597.5	15.8		28.1	5,640.8	100.9	24.0	641.1	10.0	4,864.7	234.8
Year 5/ Shell eggs 1988	5,700.0	10.0		12.0	5,722.0	104.0	25.0	675.0	10.0	4,908.0	234.8
I II III IV Year	1,476.3 1,428.3 1,420.6 1,445.9 5,771.1	1.3 2.0 0.9 0.7 1.3	231.8 260.2 249.6 234.7 976.4	0.1 0.1 1.1 1.0 2.3	1,245.8 1,169.3 1,172.9 1,212.9 4,800.9	16.0 12.0 15.7 23.2 67.0	5.8 6.0 6.2 6.4 24.3	150.2 153.5 150.5 150.0 604.3	1.0 0.9 0.7 0.3 0.3	1,072.7 996.9 999.9 1,033.0 4,105.0	52.5 48.7 48.7 50.2 200.1
1989 4/ I . II. III	1,389.3 1,393.8 1,387.5	0.3 0.5 0.8	219.6 257.3 245.1	1.4 7.6	1,171.3 1,144.6	9.1 9.7	6.2 6.3 4.1	155.1 164.8 161.2	0.48 0.81 0.69	1,000.4 963.1	48.5 46.5

<sup>1/</sup> Totals may not add due to rounding. 2/ Shell eggs and approximate shell-egg equivalent of egg products.
3/ Hatching for 1986-present calculated by the new method. 4/ Preliminary. --Not applicable for total egg supply and utilization. 5/ Forecast

Item	Nov.	Dec.	Jan.	Feb.	Mar.	, Apr.	May	June	July	Aug.	Sept.	Oct.
1 44					D	ollars p	er cwt					
Slaughter Steers: Omaha												
Choice, 1000-1100 lb Select, 1000-1100 lb	70.07 67.30	71.21 68.71	72.35 70.04	72.92 70.94	75.75 73.48	75.31 73.38	74.52 72.52	71.71 69.71	70.74 68.47	71.09 69.06	68.44 66.94	69.69 67.23
California Choice, 1000-1100 lb Colorado	71.95	70.94	72.63	74.56	76.63	74.56	73.25	70.69	72.13	73.88	70.00	72.88
Choice, 1100-1300 lb	73.17	<b>73.1</b> 0	73.75	74.82	78.51	77.77	75.39	71.86	71.35	73.17	69.25	72.24
Choice, 1000-1100 lb Slaughter heifers: Omaha	73.52	73.64	74.40	75.40	78.87	77.51	75.30	71.71	71.28	73.88	69.75	72.09
Choice, 1000-1200 lb Select, 900-1000 lb Cows:	70.31 65.88	71.23 66.81	72.48 68.46	73.19 69.54	76.80 72.85	76.57 72.98	75.03 71.98	71.63 68.88	70.44 68.06	71.32 68.50	68.29 65.50	70.08 66.56
Commercial Breaking Utility Boning Utility Canner Cutter	41.28 42.10 45.72 38.48 43.20	44.25 45.14 45.92 39.83 44.73	44.61 44.88 47.11 40.86 45.63	47.04 46.92 51.29 45.04 49.71	45.56 45.89 48.33 42.10 46.57	44.75 45.19 47.58 40.42 44.67	44.63 45.57 47.00 39.71 43.90	47.42 48.56 49.83 43.33 47.25	48.52 49.12 50.42 43.29 49.08	49.63 50.39 51.35 45.00 49.12	51.86 52.42 52.67 46.31 51.19	48.71 49.42 51.54 44.08 49.21
Vealers: 1/ Choice, So. St. Paul Feeder steers: 2/ Kansas City	230.88	225.63	230.25	225.06	257.50	266.25	260.05	258.44	246.88	263.00	258.75	244.38
Medium No. 1, 400-500 lb 600-700 lb	92.60 83.90	93.38 86.13	96.88 86.00	99.33 85.56	104.60 84.45	98.50 82.63	96.88 83.50	97.50 85.38	98.50 87.13	101.00 88.40	ng 88.63	ng 88.25
All weights and grades Okla, City	81.31	80.99	82.02	82.91	80.98	78.58	78.25	79.08	81.64	84.54	83.56	81.24
Medium No. 1 400-500 lb 600-700 700-800 Amarillo	102.05 86.41 83.31	101.64 88.10 85.46	104.30 87.87 84.45	106.35 87.86 84.50	107.50 85.98 80.63	101.94 84.11 76.25	96.12 81.38 77.30	105.35 87.10 82.47	103.70 89.54 84.22	103.82 88.48 85.34	100.42 87.01 83.88	100.71 85.62 83.32
Medium No. 1, 600-700 lb Georgia Auctions	81.70	82.83	86.38	85.50	82.70	79.50	80.90	83.17	86.67	85.30	82.00	83.88
Medium No. 1, 600-700 lb	78.60	78.50	81.25	83.00	82.60	77.50	79.00	80.50	81.00	82.40	79.50	79.25
Medium No. 2, 400-500 lb Feeder heifers: Medium No. 1,	81.60	81.67	86.25	88.25	89.20	84.63	83.40	86.13	87.33	87.10	84.13	83.13
Kansas City 400-500 lb 600-700 lb	83.30 79.70	82.88 79.00	86.69 79.38	87.75 80.50	89.25 77.81	85.83 75.00	84.70 75.50	86.50 78.38	88.25 79.50	89.75 83.30	nq 83.00	ng 82.88
Okla. City 400-500 lb. 600-700 lb. Slaughter hogs: Barrows and gilts	87.49 78.99	92.02 80.22	90.10 80.92	92.08 81.31	90.58 79.35	88.03 75.53	84.36 73.87	87.83 79.31	88.27 82.14	89.84 83.06	87.53 80.88	87.64 80.05
Omaha No. 1 & 2, 230-240 lb All weights Sioux City 7 markets 3/ Sows:	37.84 36.25 36.52 36.45	43.01 40.58 40.88 40.58	43.03 41.76 41.64 41.58	42.12 40.96 41.11 40.91	40.49 40.96 39.88 39.85	38.38 37.08 37.22 37.06	44.36 42.23 42.40 42.37	47.72 45.66 46.24 46.10	48.46 46.56 47.26 47.06	48.17 46.53 47.04 46.84	44.87 44.83 44.58 44.32	48.23 46.81 47.49 47.15
7 markets 3/ Feeder pigs: No. 1 & 2, So. Mo.,	28.14	29.49	33.60	35.67	35.27	32.07	33.94	34.54	34.70	36.52	38.33	41.46
40-50 lb (per hd.) Slaughter lambs:	27.99	29.17	35.25	34.18	39.55	34.74	34.24	28.85	24.25	30.00	30.72	37.27
Choice, San Angelo Choice, So. St. Paul Ewes, Good,	65.56 63.29	68.83 67.65	68.13 62.90	68.83 65.48	70.90 69.56	78.17 69.67	73.56 73.21	72.63 70.45	67.79 66.13	67.28 63.76	63.81 60.40	59.63 58.90
San Angelo So. St. Paul Feeder lambs:	38.75 14.32	42.08 18.60	48.13 21.63	53.28 24.88	47.55 21.92	42.45 18.93	38.95 13.56	37.10 17.30	31.92 18.08	30.65 15.06	30.31 14.05	28.00 14.98
Choice, San Angelo Choice, So. St. Paul	82.00 75.35	84.83 83.75	84.88 85.00	84.38 85.00	95.30 85.68	88.06 85.00	78.18 79.80	75.94 69.62	74.08 68.00	75.50 69.04	76.06 69.74	74.88 70.68
Farm prices: Beef cattle Calves Hogs Sheep	66.70 87.80 36.20 27.80 66.30	67.20 88.60 39.70 29.10 68.60	70.60 92.80 40.90 34.20 67.40	71.50 95.90 40.40 34.50 68.40	72.00 94.00 39.30 30.30 72.50	70.00 90.50 36.90 25.40 75.20	68.80 91.20 41.60 21.60 73.10	67.60 94.20 45.10 22.20 70.60	68.00 94.70 45.90 24.60 68.60	69.70 94.20 45.70 23.40 66.60	68.20 91.10 43.40 23.20 65.90	67.40 90.20 46.80 22.50 63.10

Table 54--Selected price statistics for meat animals and meat, 1988--Continued

Item	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
						Dollar	s per cw	t				
Meat prices:												
Wholesale Central U.S. market	:s											
Steer beef, Choic 600-700 lb		106.20	107.30	107.98	112.43	113.84	112.62	106.35	104.91	104.31	102.08	103.13
Heifer beef, Choi 550-700 lb	ce 104.49	106.22	107.39	107.90	112.36	113.63	112.49	106.35	104.91	104.23	102.04	103.13
Cow beef, Canner and Cutter	85.32	90.03	91.23	96.93	92.17	89.77	89.74	93.83	95.24	95.33	99.14	96.14
Boxed beef cut-out value 4/	112.37	112.45	113.62	114.30	117.09	118.58	118.53	114.53	113.17	112.83	110.08	110.04
Pork loins 14-18 lb 5/	77.87	93.61	89.35	90.97	91.77	91.59	99.95	108.28	115.10	110.03	105.25	111.78
Pork bellies 12-14 lb	33.64	34.82	36.91	31.41	30.19	25.49	29.11	32.90	31.52	28.82	34.23	36.8
Hams, skinned 14-17 lb	78.08	65.50	65.80	67.11	63.00	61.60	63.30	64.00	64.23	68.00	69.13	80.5
Pork cut-out _ value 6/	52.88	56.97	56.11	56.18	54.87	52.96	58.42	62.56	63.59	64.38	61.84	65.5
East Coast: Lamb, Choice and	Prime	4/7.50	4/7 /0		455 05	450.70	440.70	470.74	474 70	407.75		407.5
35-45 lb. 55-65 lb.	133.65 127.70	147.50 137.50	143.69 133.75	146.44 135.88	155.25 142.60	159.38 147.06	149.30 142.35	139.31 139.31	131.72 133.03	127.45 130.75	125.44 121.44	123.50 117.60
West Coast: Steer beef, Choice	e 407 47	40/ 50	440.07	440.40	447.70	440.07	444 07	444 40	440 //	400.00	407.70	400 (
700-800 (6	106.13	106.58	110.97	112.19	117.30		116.97	111.19	110.44	109.90	107.38	108.6
Retail						Cents p	er lb					
Beef Choice	260.4	260.0	264.3	265.2	269.5	269.8	271.9	268.1	271.6	269.5	270.9	
All Fresh Pork	231.8 178.0	233.0 177.4	232.1 181.1	231.9 179.3	236.5 179.7	238.4 179.5	239.4 177.1	237.3 179.1	240.6 182.8	240.1 184.6	241.0 184.4	
						1982-84	=100					
Price indexes: (BLS) Retail meats	113.0	112.7	114.0	114.3	115.5	115.6	115.6	116.1	116.7	117.5	117.7	
Beef and veal Pork	114.7 110.0	114.6 109.6	116.0 111.5	116.6 110.9	119.0 111.0	119.0 111.2	119.6 110.1	119.3	119.5 113.6	119.7 114.8	120.0 114.3	
Other meats Poultry	113.8 127.2	113.1 127.1	113.3 128.8	114.0 128.4	114.0 130.3	114.3 133.0	114.4 137.3	114.9 140.1	115.1 138.1	116.6 <b>13</b> 6.2	117.6 134.0	
ivestock-feed ratios Omaha: 7/												
Steer-corn Hog-corn	28.4 14.7	27.9 16.2	28.2 16.4	28.7 16.3	29.4 15.4	30.2 14.8	29.4 16.8	28.9	29.6 19.6	32.0 20.9	30.8 19.8	31. 20.

1/ Beginning Sept. 10, 1988, prices reported per head.2/ Reflects new feeder cattle grades. 3/ St. Louis N.S.Y., Kansas City, Omaha, Sioux City, So. St. Joseph, So. St. Paul, and Indianapolis. 4/ Beef, Choice 2-3 550-700 lb. 5/ Prior to 1984, 8-14 lb; 1984 and 1985, 14-17 lb; 1986, 14-18 lb. 6/ U.S. #2, 175 lb. carcass. 7/ Bushels of No. 2 yellow corn equivalent in value to 100 pounds live weight.

Table 55--Selected marketings, slaughter, stocks, and trade for meat animals and meat, 1988-89

tem	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
	* • • • • • •					1,000 h	ead					
ederally inspected: Slaughter												
Cattle Steers	2,871 1,324	2,698 1,270 797	2,685 1,311 790	2,711	2,500	2,744 1,361	2,576 1,302	2,947 1,482	2,951	2,730 1,353	2,975 1,456	2,706 1,320
Heifers Cows	934 555	579	537	827 544	786 445	817 518	743 480	884 526	929 496	882 442	949 507	853 477
Bulls and stags Calves	57 197	52 202	47 20 <u>3</u>	50 196	41 175	49 194	51 152	55 157	57 161	53 169	62 189	56 173
Sheep and lambs Hogs	437 7,887	418 7,909	7,703 4.3	7,11 <u>6</u>	415 6,619	505 7,569	393 7,199	7,277 4.7	423 6,881 5.5	399 6,131	476 7 <b>,39</b> 2 5.7	7,493
Percentage sows	4.4	4.4	4.3	4.7	4.1	4.2	4.0	4./	5.5	4.9	5./	4.9
Average live wt per head						Pounds	S					
Cattle Calves	1,140 267	1,139 254	1,146	1,152	1,136 258	1,128 255	1,117	1,107 289	1,118 278	1,126	1,144 247	1,154
Sheep and lambs	123 251	124 253	126 251	126	127	126 247	128 251	125 251	120 251	120 247	118 247	120 246
Average dressed wt Beef	683	677	681	686	684	675	669	665	673	681	692	696
Veal Lamb and mutton	161 62	154 63	150 64	156 65	157 64	155 64	167 65	179 64	172 61	156 61	149 60	155 62
Pork	179	181	180	180	178	178	180	180	180	177	177	176
Production						Million p	oounas					
Beef Veal	1,954 31	1,818 30	1,822	1,852 30	1,705	1,844 30	1,717 26	1,954 28	1,979 27	1,852 26	2,050 28	1,874 26
Lamb and mutton Pork	27 1,409	26 1,425	28 1,385	27 1,274	26 1,175	32 1,342	25 1,291	28 1,308	25 1,235	1,081	28 1, <b>3</b> 02	27 1,318
mmercial: 1/	•	·		·	·	1,000 1		•	·	•	•	•
Slaughter Cattle	2,966	2,800	2,774	2,789	2,568	2,822	2,644	3,024	3,025	2,794	3,045	2,772
Calves Sheep and Lambs	206 452	210 432	460	203 428	181 425	200 519	158 409	163	167 437	174 413	195 494	179 457
Hogs	8,096	8,138	7,946	7,332	6,791	7,763 Hillion p	7,380	7,480	7,079	6,295	7,587	7,680
Production						Tree Ton p	oui Na					
Beef Veal	2,041	2,007 33	1,876 32	1,872 32 27	1,896 28	1,744 31	1,889 27	1,757 29	2,022	1,889 27	2,091	1,912 28
Lamb and mutton Pork	28 1,443	27 1,46 <b>3</b>	1,425	27 1,310	1,204	33 1,373	26 1,321	28 1,341	26 1,266	25 1,107	29 1,333	28 1,349
ld storage stocks: 2/ Beef	296	300	317	315	313	298	273	244	242	249	242	233
Veal Lamb and mutton	3 6	5 6	5	7 7	7 6	7 7	7 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	6 8	8	8	5 7
Pork Total meat	321 . 654	<b>3</b> 61 701	358 716	381 745	<b>3</b> 97 <b>7</b> 62	394 749	438 767	431 735	<b>383</b> 686	345 654	281 579	282 560
ade: Imports (carcass wt) Beef and veal 4/	155.4	163.3	112 4	226.7	161.7	178.1	166.8	187.3	179.1	193.3	186.3	
Lamb, mutton, and goat Pork	2.8	3.3 85.0	112.4 3.4 91.3	6.3	4.5	5.7 85.8	6.3	5.6 83.4	5.6	5.6 63.2	5.6 73.4	
Exports (carcass wt) Beef and veal 4/	69.1	74.9	61.5		62.4	94.9	81.9	92.1	97.3	101.8	99.8	
Lamb and mutton Pork	0.2 18.1	0.1 21.6	0.3	54.3 0.2 20.2	0.3 17.8	0.2 16.8	0.2 19.5	0.2 24.2	0.2	0.2	0.3	

1/ Federally inspected and other commercial. 2/ End of month. Beginning January 1977, excludes beef and pork stocks in cooler. 3/ Less than 50,000 lb. 4/ Beginning January 1989, veal trade is no longer reported separately.

### **Factors Affecting Growth in Turkey Consumption**

by

#### Mark R. Weimar\*

Abstract: Increased consumption of further processed and cut-up turkey products appears to be dependent upon expanding consumer disposable income, and turkey prices declining in real terms and relative to pork prices. Turkey demand seems to be closely related to pork production and prices, but not as closely to broilers and beef. New products also allow turkey to compete in new markets. In turn, producers respond to prevailing prices and the related net returns. Their past responses provide a good indication of next year's production, and therefore consumption.

Keywords: Turkeys, consumption, prices, demand, markets, further processing, production, supply response.

#### Turkey Demand and Supply Factors

Growth in per capita consumption of turkeys has been rapid during the 1980's, especially from 1984 through 1987. But can it be sustained? The growth can be partly explained by changes in the product being marketed, increased consumer buying power, lower real turkey prices, and a lower turkey price relative to pork and other meats. The ability of turkey producers to improve cost efficiency through better breeds and management techniques has also fueled the growth. Increasing vertical integration and concentration could have also lead to cost efficiencies through streamlined marketing functions and economies of scale.

Turkey consumption grew at a fairly steady pace from 1950 through the early 1980's. Most of the increased consumption was likely prompted by turkey producers who offered product at lower real and relative prices through 1983. From 1984 through 1987, however, per capita consumption climbed from 11.3 to 15.1 pounds, a 10-percent annual rate far outstripping the 3-percent annual rate from 1950 through 1984.

The rapid growth can likely be attributed to expansion into the new product forms rather than to lower real retail turkey prices and lower turkey prices relative to pork. Real turkey prices remained stable and relative prices, at least partially, moved counter to increased turkey consumption. The prices of further processed and cut-up turkey meat (such as commodity tom prices, canner tom prices, and turkey breast prices) support this hypothesis.

Whether the expansion can be continued will depend upon whether turkey producers succeed in: finding new markets;

reducing the real cost of production so they can offer turkey at lower real prices; and providing a lower-priced product relative to other meats. In other words, will they continue to increase their economic efficiency faster than their competitors?

#### The Changing Market for Turkey

The rapid expansion in turkey consumption during the 1980's has occurred mainly in the further processed and cut-up sectors rather than in whole birds, although industry sources estimate whole birds still comprise about 34-40 percent of total turkey consumption. The growth in the 1980's appears to be heavily correlated with processors providing manageable processed and cut-up products in fresh, frozen, and preserved form at the supermarket counter. These items include fresh thighs, drumsticks, breasts, ground turkey, and turkey sausage, all conveniently and competitively packaged.

Today's consumers are no longer limited to the choice of a 13 to 25-pound turkey or a 10- to 12-pound beef or pork roast. Rather, they can choose among similarly sized packages of turkey breast or thighs, or beef or pork roasts. Also, turkey tenderloin cuts and ground turkey compete directly with other fresh meats in the relatively easy- and fast-to-cook meat category that includes hamburger, pork chops, steaks, and boneless chicken breasts.

Increases in real disposable income have also contributed to turkey consumption growth. Further processed and cut-up products cost more to produce, and therefore have to be sold at a higher per-pound retail price to be profitable. Rising disposable income allows consumers to buy more product (even at higher prices) and remain within their budgets.

Statistical evidence indicates that as consumers earn more money, they spend more on poultry. People earning \$5,000

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to \$9,999 spend only \$1.40 per week on poultry; people earning more than \$40,000 spend \$2.20 on poultry (8). But just because consumers pay more for poultry does not mean that they consume a greater quantity of it—prices may rise more than consumed quantity. However, an unpublished Economic Research Service demand model indicates that consumers increase their consumption by 4 percent for every 10 percent increase in their income. Therefore, a growing disposable income contributes to expanded turkey purchases, if all other demand factors remain the same.

Three indicators demonstrate the shift from whole bird to further processed and cut-up consumption, and consequently the rapid growth of consumption in the 1980's: eastern region hen prices versus eastern region tom prices, eastern region hen prices versus eastern region breast prices, and central region canner tom prices. Because toms are more valuable in further processing, a decrease in the price of hens relative to toms could reflect movement towards increased desirability of the tom for further processed turkey meat (fig. A-1). There is considerable variation in the relative prices, but hen prices appear to be at their strongest early in the year, while tom prices peak later. This pattern was especially evident between 1984 and 1986. Before 1984, toms were only sporadically worth more than hens.

In general, toms seem to be gaining value compared with the hens. However, when turkey production increases dramatically, tom prices will likely be lower than hens even in the fall. For example, during 1987 tom prices moved from a 14-percent premium to an 11-percent discount.

The value of hens relative to turkey breast meat provides additional evidence of the growing quantities of breast meat demanded by the further processing market. Hens do not produce as much breast meat as toms. As the further processing market began gaining ground in the early 1980's, the value of commodity hens began to fall relative to breast meat. Furthermore, larger breasts commanded higher prices than 10- to 12-pound breasts, perhaps indicating the lower costs associated with handling the larger breasts and the premium paid by the foodservice industry for large and convenient breast sizes.

Changes in canner turkey prices in the central region reinforced the movement into further processed meat consumption, especially from 1984 to 1987, when the long-term consumption growth rate tripled. Demand in the further processing market apparently shifted as a scarcity of canner birds pushed up prices and per capita consumption of turkey exceeded that of the previous year.

Canner turkey prices rose from around 56 cents per pound in 1983 to nearly 72 cents in 1984, and then fell to 68 cents by 1986. However, per capita consumption climbed from 11.3 pounds in 1987 to 13.3 pounds in 1986, an 18-percent in-

Figure A-1
Relative Prices of Whole Hen Turkeys Versus Toms

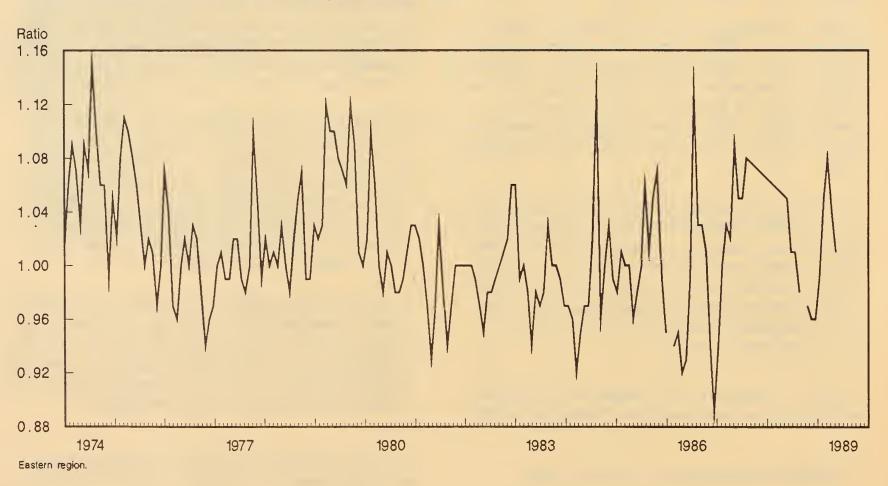
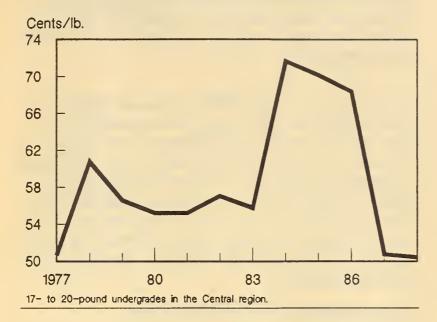


Figure A-2

Canner Tom Turkey Prices



crease over 2 years (fig. A-2). Canner tom prices were rarely higher than hen prices before 1984, but frequently surpassed hen prices between 1984 and 1986, another indication of the increased quantities of turkey demanded by the further processed and cut-up markets during that period.

The rapid decline in 1987 canner prices reflects the 19-percent gain in production and the inability of the further processed and cut-up markets to absorb the increase. Compared with canner tom prices, hen prices moved up substantially during 1987, another indication of the growth slowdown in the further processing market.

#### Turkey's Relative Position in the Meat Sector

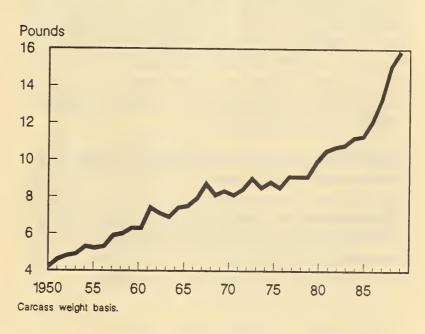
Turkey's relative position in the meat sector is important in determining how market movements in other meat industries will affect turkey prices and production, and therefore consumption. Despite higher consumption since 1950, turkey still comprises the smallest share of the four major meats. By 1988, per capita turkey consumption had risen to nearly 16 pounds on a carcass-weight basis (fig. A-3). This compared with broilers at 61.9 pounds, pork at 66.7 pounds, and beef at 102.3 pounds.1

USDA data indicated that per capita beef consumption climbed from nearly 60 pounds in 1950 to around 130 pounds in 1975. By 1978, per capita beef consumption had declined to about 100 pounds, where it has remained. Per

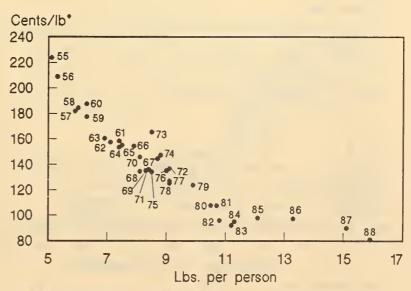
capita pork consumption peaked at about 90 pounds in the early 1950's. Per capita pork consumption, unlike that of beef, cycles up and down, going from as low as 60 to as high as 80 pounds. Per capita broiler consumption, like that of turkey, has increased steadily from nearly 8 pounds in 1950 to 62 pounds today. Turkey consumption has gone from 4 pounds per person in 1950 to nearly 16 pounds in 1988. However, the increase accelerated rather dramatically in the 1980's.

The changing composition of meat consumption has engendered a number of arguments about changing meat demand. Some analysts have claimed that beef and pork demand have shifted (3, 4), while others dispute this claim (1, 2). Similar arguments could be made by analysts looking at price-quantity relationships for turkey consumption (fig. A-4). The plot of retail price (deflated by the consumer price index (CPI)) versus per capita consumption indicates

Figure A-3
Per Capita Turkey Consumption



Price Quantity Relationships for Turkey



<sup>\*</sup> Retail price divided by consumer price index.

<sup>&</sup>lt;sup>1</sup>These numbers may not compare with other USDA tables on per capita meat consumption at first glance, because most per capita consumption numbers for red meat are reported on a retail-weight basis. Poultry per capita consumption numbers, however, are the same for both retail- and carcass-weight bases. So for the purposes of this study, red meat and poultry consumption were compared on a carcass-weight basis.

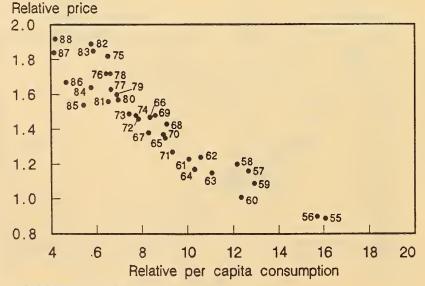
that turkey consumption has not been especially price responsive in the last 5 years. But before 1984, a large amount of the turkey consumption growth could be explained by the lower real prices paid by consumers.

However, the prices consumers pay for other meats affect the price they are willing to pay for turkey. Pork consumption and prices apparently have a fairly close relationship with turkey consumption and prices (fig. A-5)—increases in the relative price of one leads to increases in consumption of the other. Increased turkey consumption relative to pork from 1955 to 1988 can be partly attributed to a declining relative turkey price, except for 1982 through 1985. During those years, relative turkey prices decreased while relative consumption remained the same or rose slightly.

The relationship between pork and turkey holds particularly well for pork hams and turkey breast. Dividing the ham price by the breast price and comparing cycles in hogs and turkeys for the same periods demonstrates how demands for particular cuts of different meats interact. From 1980 to 1982, pork production was in a down cycle. As ham quantities fell relative to turkey breast supplies, ham prices rose relative to turkey breast prices. During 1986 to 1988, turkey production increased dramatically compared with pork, and the relative price of ham rose. Then, as turkey production was scaled back in late 1988 and early 1989, breast prices began to rise relative to ham.

Several buying decision criteria indicate that turkeys and broilers would be highly competitive and have a relatively tight relationship because they are both poultry products. These decision criteria include the cooking ease, product size, meat type and relative prices of the choices available. For example, if the price of chicken rose relative to turkey, people would buy less chicken and more turkey.

Figure A-5
Price Quantity Relationships for Pork
Versus Turkey\*



Ratios are pork/turkey.

Yet no predictable price and consumption responses between turkey and chicken can be found for 1955 to 1988, especially between 1980 and 1985, when their relationship showed sideways and vertical movements. Thus, there was no predictable relationship which might indicate further growth in turkey consumption.

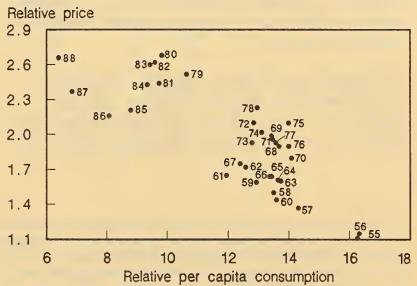
There also does not appear to be a predictable relationship between turkey and beef. Relative consumption to relative price formed a vertical scatter pattern between 1957 and 1978 and a V between 1979 and 1988 (fig. A-6). The erratic nature of the relationship in the earlier period might be explained by turkey's specialty meat image before the 1980's. Turkey may not have truly competed in the same market as beef. But turkey cuts began to compete directly with beef in the mid-1980's, and a relationship may be developing that is as yet undocumented.

#### **Turkey Production Response and Timing**

Due to the biological nature of turkey production, the prices received for it today will impact the quantity available for consumption next year through profitability as measured by net returns. The level of production next year depends primarily on producers' past profitability and their expectations of profitability next year. Production response does appear to lag about 1 year when annual numbers are used. Lagging real net returns (net returns divided by the CPI) 1 year and plotting them in relation to the production response the following year indicates a fairly strong relationship (fig. A-7). Production increases when net returns are positive and decreases when they are negative.

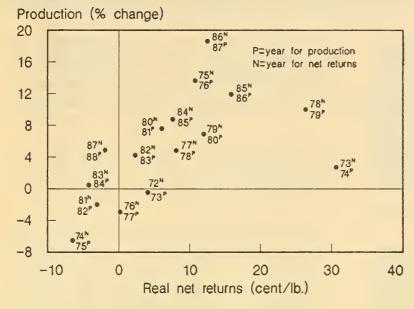
Only the response associated with net returns in 1973 is an anomaly, can probably be explained by the uncertainties of that year. Wage and price controls were in effect, and a sud-

Figure A-6
Price Quantity Relationships for Beef
Versus Turkey\*



\* Ratios are beef/turkey.

Turkey Producer Response to Net Returns Lagged 1 Year



den increase in exports drove up feed costs. This uncertainty may have affected producers' decisions, causing them to limit production increases despite the high level of profitability. Apart from this notable exception, producers seem to have responded rationally to net returns, even between 1986 and 1988, when production increases were considered over-reactions to profitability. Thus, the interaction of the turkey sector with other meats will determine this year's prices, which in turn will impact next year's production.

#### Conclusions

Until 5 years ago, turkey producers appear to have expanded turkey consumption by offering their product at lower real prices. Since then evidence indicates that the growing number of market forms available for consumers may have kept whole bird turkey values constant in real terms, a fact that might explain the rapid consumption gains of the mid-1980's. However, the further processing market has shown an inability to absorb sharp increases in production, especially in 1987 and 1989, indicating processors may need to open new markets to maintain this rapid growth.

Before 1984, producers were able to keep down the real price for turkey through increased feed efficiency and rate of growth by improvements in turkey breeder stock, feeding practices, and housing management. Increased vertical integration and concentration may also have lowered costs. Yet the rate of this technological growth appears to be slowing. Data indicate that turkey cost efficiencies are not being realized as steadily as in the past. Future gains in turkey con-

sumption may depend on reducing real production costs and price relative to competitors, opening new markets for turkey products, and increasing consumer disposable income.

#### References

- 1. Dahlgran, Roger A. "Re: Purcell's Beef Demand." *Choices*. The American Agricultural Economics Association, Herndon, VA, Vol. 4, No. 3, Third Quarter 1989, pp. 39-40.
- Johnson, D. Gale. "Continuity and Change in the Beef Industry." Paper presented at National Broiler Council Conference, Washington, DC, October 13, 1989.
- 3. Lambert, Chuck. "Re: Purcell's Beef Demand." Choices. The American Agricultural Economics Association, Herndon, VA, Vol. 4, No. 3, Third Quarter 1989, pp. 41-41.
- 4. Purcell, Wayne D. "The Case of Beef Demand: A Failure by the Discipline." *Choices*. The American Agricultural Economics Association, Herndon, VA, Vol. 4, No. 2, Second Quarter 1989, pp. 16-19.
- Egg and Poultry Statistics Through Mid-1961.
  Washington, DC: U.S. Department of Agriculture,
  Economic Research Service, Statistical Reporting Service, and Agricultural Marketing Service, Statistical Bulletin 305, March 1962.
- Livestock and Meat Statistics, 1983. Washington, DC: U.S. Department of Agriculture, Economic Research Service, Statistical Bulletin 715, December 1984.
- Livestock and Poultry Situation and Outlook Reports.
   Washington, DC: U.S. Department of Agriculture,
   Economic Research Service, LPS series, various issues.
- 8. *Meat Facts*. Washington, DC: American Meat Institute, 1989 edition, August 1989.
- 9. Poultry Market Statistics: Annual Summary, Federal-State Market News, In Cooperation with State Departments of Agriculture. Washington, DC: U.S. Department of Agriculture, Agricultural Marketing Service, various issues.

Weimar, Mark R. and Shauna Cromer. U.S. Egg and Poultry Statistical Series, 1960-87. Washington, DC: U.S. Department of Agriculture, Economic Research Service, Statistical Bulletin 447, April 1989.

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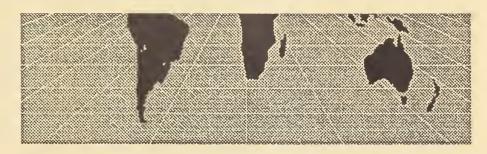
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